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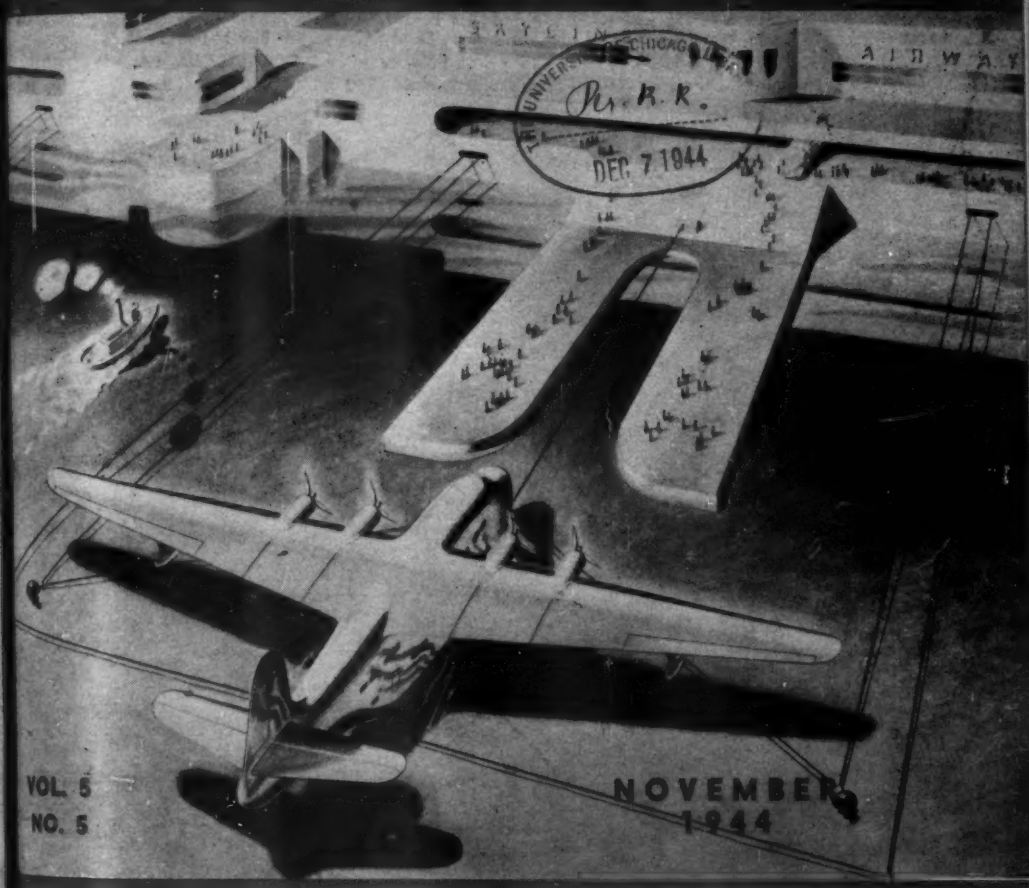

VOL. 5
NO. 5

NOVEMBER
1944

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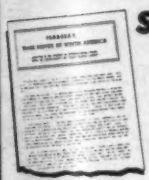
PAA GRACE



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January Forms Close December Tenth

Vol. 5
No. 5

AIR TRANSPORTATION

50 CENTS A COPY $5.00 A YEAR

November
1944

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THE COVER—Designed by Glenn L. Martin engineers, this revolutionary type of seaplane terminal offers a glimpse of what air-minded America may confidently expect in the postwar years.

JOHN F. BUDD, *Editor and Publisher*

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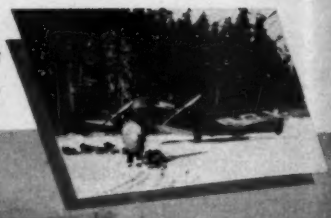

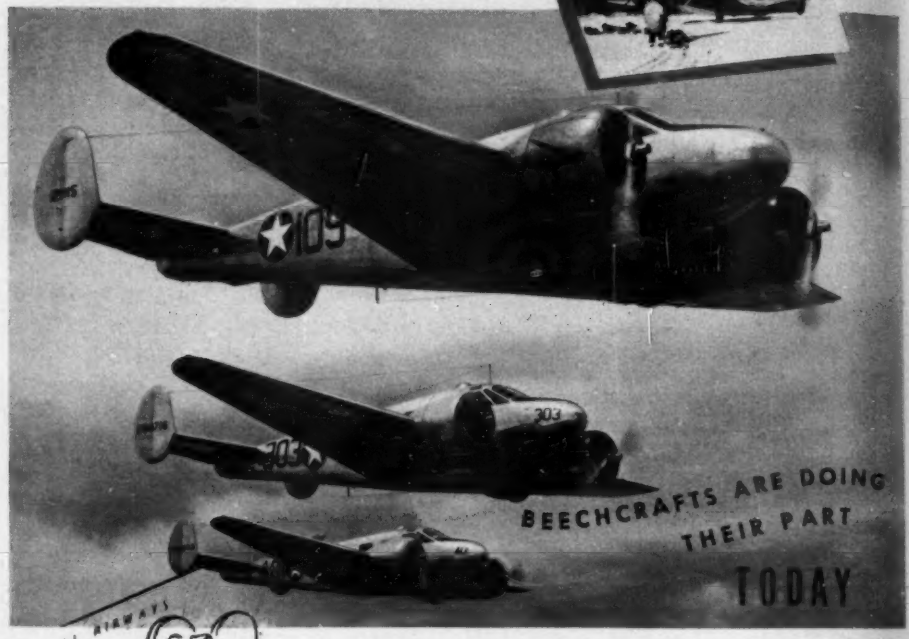

(Top) One of Starratt Airways' Beechcrafts used on skis and floats in passenger, mail and express service in the Canadian Northwest

(Photograph courtesy Starratt Airways, Ltd.)

(Center) Most Army Air Forces navigators were trained in Beechcraft AT-7 navigation trainers, like these three flying in echelon formation

(Official Photograph U.S. Army Air Forces)

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AIR CARGO AND CUSTOMS

This is admittedly an "informal and abbreviated version" of a few phases of air cargo and customs, but contained therein is a thesaurus of information that should be within reach on the desk of every air shipper.

By JOSEPH GAMBURG

Law Division, Collector's Office
United States Customs Service
Custom House, New York, N. Y.

WHEN the first Congress of the United States by its second enactment, and early amendatory acts, established a customs law and the machinery for its administration, it geared the customs process, necessarily, to the economy, the politics and the tempo of the day. But these factors, changing constantly and increasingly potent, have not found the customs service static. They have found it responsive and adaptable to every significant development in our foreign commerce, tariff policy, and transportation. Today, stimulated by the achievements of air transportation, customs stands with eyes to the sky and ear attuned to the propellor's pitch, fully prepared to accommodate commercial air cargo.

The customs officer has been long a familiar of the airport, for wherever in this country foreign commerce flows, in whatever quantities, he must be present to divert to the Government its tithe, more or less, and to perform his other multifold duties. His activities are governed by the customs and related laws and regulations; his technique, for the present, is dictated in large measure by his experiences at the sea and lake ports of the country and at its borders.

However, the peculiarities of air transportation have become apparent with each appreciable increase in volume of air borne cargo and it is obvious that, in time, they will require customs practices suited to entirely new conditions. Old concepts of customs administration will be altered and new measures devised. More constant and increased attendance of customs officers at principal airports will be necessary.

Important Speed Factor

Air transportation, as an industry, will feed always on the desire of shipper or consignee for speed, and since any undue delay occasioned by customs formalities will nullify the principal advantage which the industry has to offer, it will in its own interests study and bring to the attention of the proper authorities any feature of customs practice that is not equal to the pace. Where a need for change is demonstrated, and a corresponding benefit to the public can be shown, it is certain that customs will cooperate.

The skilled observer can even now recognize irrepressible urgings for changes in the customs process as applied to air cargo. Careful exploration of the subject will reveal abundant detail that merits attention. The subject should be studied now, while there is enough but not too much cargo at enough but not too many airports to make ideal the conditions for such a study.

To wait for cargo in quantity, and problems in proportion, before devoting to this subject the attention it deserves, may require an ordering of chaos taxing even to the capabilities of a young and vigorous industry. Without planned preparation there will be disorder at terminals, delays in the customhouse and a resultant decline of confidence in the air carrier as a medium for rapid transportation of imported goods.

Anticipation, or even recognition, of any problem affecting the air carrier requires an understanding of certain basic customs rules which apply equally to carriage by water, overland, or by air. An understanding of fundamentals will encourage constructive thought and breed ideas on sound lines. The initiated, when adverse rules threaten, can argue with conviction toward change and

progress; the uninformed, if at all articulate, can be only futilely remonstrative. And so, because even slight knowledge has the capacity to provoke great interest, I feel impelled to sketch, for the benefit of many who are new to the field, some features of customs practice with which cargo carriers are most directly concerned.

Entry of Aircraft

First in the customs process, from the viewpoint of the airlines, is the entry of aircraft. It is generally true that every vessel or aircraft must be entered at the customhouse upon arrival from a foreign port, or from a domestic port bearing foreign cargo. Such entry carries philosophical connotations of obeisance, upon arrival, to the sovereign state and a plea for license, upon accounts rendered, to engage in commercial activity; but to the practical shipping man, burdened by the detail, it means in a very material sense, the production under pain of penalties provided by law of manifests, passenger lists, crew lists, bills of health and other prescribed evidences of itinerary and commercial activity, all declared under oath by the master or commanding officer to be true and correct.

Entry is essential to the protection of the revenue, and to proper administration of the immigration and quarantine laws. Every step in its process is purposeful and, from the viewpoint of the customs service, the Department of Justice, the Federal Security Agency, and other Governmental establishments, indispensable.

The detail involved, fully outlined, might cause apprehension as to delays occasioned by the process. But, actually, the formalities incident to entry of a single aircraft consume only about five minutes. Nor is time lost, at most ports in traveling from airport to customhouse. At larger ports or airports of entry such as Miami, New York and Burlington, a customs office is maintained at the airport. Every customs transaction requiring speed of execution is there completed. Procedures are condensed and accelerated. The dispatch with which entry is accomplished will satisfy the most critical.

Yet, even this consistently well ordered process will need molding to conform to changed conditions. The onus of proper entry which has weighed upon vessels' masters since earliest times, appears misplaced when imposed on the aircraft commander. Necessity vested the old salt-water skipper with the roles of agent, fiduciary and general factotum for his owner; the aircraft commander, whose trips are less leisurely and more frequent, has more the character of a technician and should be freed as far as possible from all but his specialized duties.

Responsibilities of Airlines

In practice, it is the airline which prepares the papers incident to entry and assumes any liabilities incurred by the commander. It would be as well then to have the obligations and liabilities relating to entry rest with the airlines. There should be no reluctance on the part of the airlines to be charged with responsibilities already assumed, and no fear on the part of the Government that, of all parties involved, the commander alone may be found within the jurisdiction of our courts and made to answer for infraction of our laws. That notion, associated with the windjammer and tramp steamer, has scant application to modern air transportation.

The thought here expressed is but one of many which come readily to mind, but lest our theme be confined to entry, we shall pass to the next step in the customs scheme, landing and delivery of cargo. One approach to this subject is through examination of the vessel or aircraft bond.

A vessel or aircraft bond must be filed for every aircraft in foreign trade. The imperative devolves from no specific provision of law, nor yet from bureaucratic edict, but almost entirely from considerations of expediency. Unless the bond is filed with the Collector of Customs, no cargo intended for delivery may be landed prior to its entry. We speak here of entry of merchandise and not, as above, of the aircraft.

The Author

A member of the New York Bar and an attorney in the office of the Collector of Customs at the Port of New York, Joseph Gamburg has been in the Customs Service since November, 1930. He is a recognized authority on customs law and a widely acknowledged expert in the field of customs administration.

Mr. Gamburg became personally known to the editor of *Air Transportation* several years ago in Washington during an interview with regard to the currently effective Customs Regulations which the former was then drafting *under the direction of the Commissioner of Customs.*

His interest in air transportation dates back to his law school days when, in the post-graduate class at St. John's College Law School he selected a phase of aviation law as the subject for a thesis toward an LL.M. degree. That early interest has continued and is combined in this article with the author's other major interest—customs. For a long time he has sought to impress figures in customs and shipping circles with the necessity for early planning to coordinate the features of customs and air transportation.

Mr. Gamburg will be 35 years old by the time this is published. He was born in Brooklyn and received his education in the Brooklyn Public Schools and St. John's College. He is married to a former Powers model. The Gamburgs have a three-year-old daughter.

Since arriving planes must speedily reload and depart, delay in unlading for the time required by the various importers to complete their entries cannot be tolerated. It is obvious then that the bond must be filed if normal operations are to be maintained. Established airlines find it advisable to file term bonds covering all transactions at a particular port for a period of one year. The single entry bond is available to those whose business at a port is infrequent.

Features of Bond

The principal features of the bond are these: It secures to the Government the payment of penalties which may be incurred by the aircraft or by the owner, agent or commander of the aircraft; it guarantees the payment of duties on any merchandise, landed before entry, which is removed from the place of unlading prior to the issuance of a delivery permit; and it holds the carrier firmly bound to reimburse the Government for payment of overtime compensation to customs employees assigned to the airport in the interest and at the request of the air carrier during hours other than those comprising their regular tours of duty or on Sundays or holidays.

No passengers, baggage, cargo, stores or equipment may be landed otherwise than in pursuance of a duly issued customs permit and, as indicated, no permit will be issued, except for entered merchandise or merchandise to be delivered into customs custody, unless a vessel or aircraft bond has been filed.

The reason for this will be readily appreciated. Articles which have been entered, and for which delivery permits have been issued are deemed the property of the consignee who by making entry incurs a liability for duties. Any legal limitations or restrictions on the importation are exercised at the time of entry, or later in connection therewith. Before entry, the carrier is in control of the cargo and made liable by law for the duties on any landed merchandise which by reason of loss, larceny or other cause is unavailable for delivery when the delivery permit is issued. The bond is security for the payment of those duties.

Major Cost Item

Lading and unlading of aircraft must necessarily continue through various hours of the night, and on Sundays and holidays. Customs services are required at all of those times, at expense to the airlines under existing law. This expense in recent years has been described as a considerable item in the cost of operations and bids fair to become greater as the development and growth of air transportation brings increased airport activities.

Relief is being sought, but unless and until legislative relief is granted, customs overtime services will be rendered only at the request of the carrier whose bond guaranteeing reimbursement of overtime compensation has been filed. Current discussions between airline and custom officials on overtime reimbursement have centered around many interesting problems, but the writer, as a participant in those discussions, must regretfully refrain from comment at this time.

Disassociating ourselves on this inadequate note from the discussion on lading of cargo, we turn logically to delivery of the landed merchandise. In the usual case, the importing carrier upon receipt of a proper permit delivers to the importer, or to a licensed cartman for transfer to a customs bonded warehouse, all formally entered merchandise except those packages which have been designated for examination and appraisement. A considerable number of unentered shipments, however, are delivered to common carriers to be transported under bond to ports throughout the country, there to be entered. These "in-bond" or "in-transit" shipments will comprise as lucrative a field for our homebody airlines as they always have for the innumerable customs bonded surface carriers operating solely within our coasts and borders.

Dependent on Congress

The influences already at play, which will bring many of our larger airports and, consequently, much of our imported cargo inland, have been widely discussed in these pages and in most publications concerned with commerce and transportation. Whether the imported merchandise will arrive at those inland ports directly from abroad or in-bond from gateway ports will depend on many factors and, principally, on how Congress applies its will to the controversy now raging on the question whether ocean flyers should be compelled to land at gateway ports. In any event, we will find principal airlines and feeder lines thoroughly engaged with the complexities of the in-bond process.

The privilege of operating as a customs bonded common carrier is conferred upon qualified carriers by the Bureau of Customs which requires that a bond in an appropriate amount be given to assure the Government that there will be strict adherence to the regulations governing in-transit shipments and that the revenue will be protected. Thereafter, the cordial relationship between Government and carrier is maintained for so long as demands upon the bond are few and infrequent.

The in-bond procedure is the means of control exercised by customs over merchandise forwarded after importation to a port where final customs treatment is to be accorded. It

is a procedure designed to protect the revenue while accommodating the importer, who, for purposes of his own, must move his goods to another port before they are entered, exported, or otherwise disposed of in accordance with law.

In-bond shipments may consist of unentered goods transported from the port of arrival for entry at another port; merchandise withdrawn from a bonded warehouse for transportation, for transportation and exportation, or for transportation and rewarehousing; or merchandise in-transit from a foreign land through the United States to another foreign country. Each transaction listed has specially distinguishing features which require particular customs documentation and treatment but, essentially, one rule must be followed always: In-bond goods may be laden only under supervision of a customs officer and the quantity found and noted by him on the in-transit entry or special manifest must be promptly and safely delivered, with customs seals intact, into customs custody at the port of destination. Any apparent discrepancy, unless satisfactorily explained, will support a claim for liquidated damages under the carrier's bond.

So simple an expression of the rule for conduct of common carriers will be critically regarded, for many find the in-transit procedure formidable. Nevertheless, this rule defines the sole basis for assertion of liability under the carrier's bond.

Procedure Changes Anticipated

The procedural detail of the in-transit scheme cannot be similarly confined to a comprehensive generality. There, admittedly, is a regimen not readily digested, nor is it possible to essay the theme in the few lines left here. We may say, however, concerning the in-transit procedure as we have of other features of the customs process, that changes must be anticipated. The precise nature of those changes cannot be foreseen; the problems encountered in large scale air transportation will determine the need and suggest the course.

There is more in customs that concerns the air carrier. In this informal and abbreviated version of the few phases most directly related to transportation we seek merely to introduce the subject and to provoke thought. The field has been scarcely touched and is open wide to exploration. There must be more ambitious undertakings than this scant outline.

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Handley Page Hermes Makes Its Bow With Two Versions

British Plane Carries 16,000 Pounds Of Freight or 50 Passengers

DEVELOPMENT of the new British airliner, the Handley Page *Hermes*, is being hailed in England as another step in the grandual changeover from military to civil production. The *Hermes* was specially designed for passenger travel and cargo transportation for trunk air routes throughout the world.

Two versions of the *Hermes* are programmed for construction. One will be a passenger vehicle, with varying accommodation for day or night sleeper travel over stages up to 2,000 miles point-to-point. The other will be a commercial cargo version, outwardly the same aircraft but internally adapted to carry up to 16,000 pounds of freight out of an all-up weight of 70,000 pounds.

The passenger version includes a fuselage which has sealed compartments, commonly termed a "pressurized" cabin, whereby travel at altitudes where the atmosphere is considerably rarefied will be possible without inconvenience to the passengers. The cargo version, not equipped with pressure cabin, has a large door to permit ingress of bulky goods.

Good Speeds Noted

The *Hermes* is of conventional low-wing all-metal stressed skin design and construction. Its most noticeable features are the circular cross-section of the fuselage which tapers to a conical tail. Power is provided by four Bristol *Hercules* 14-cylinder sleeve-valve radial air-cooled engines giving a total maximum output of 6,600 horsepower. Each engine drives a de Havilland hydromatic, fully-feathering airscrew. Both main forward undercarriage and tail wheel are retractable. The *Hermes* is scheduled for a maximum speed of 340 miles per hour; a weak mixture maximum cruising speed of 289 miles per hour; and an economical cruising speed over long distances of 240 miles per hour.

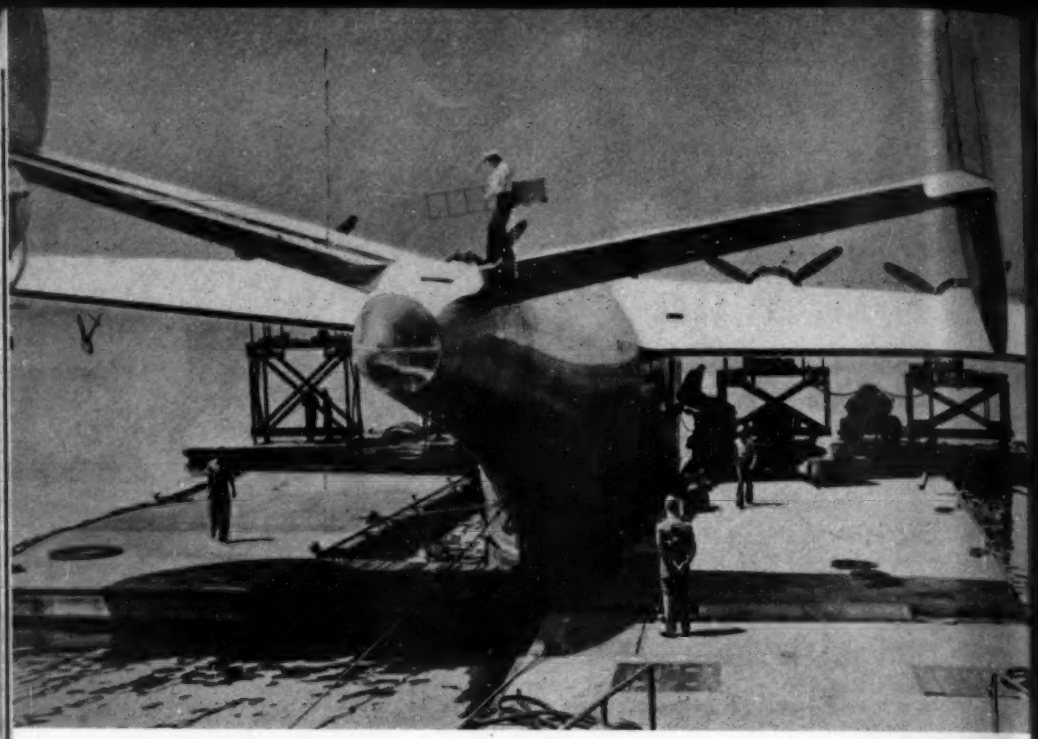
Considerable flexibility of internal distribution of seating in the passenger version is a feature likely to attract airline operators of varying needs. The freedom of lay-out derives in the main from the absence of internal obstructions, such as bulkheads.

Provisional lay-outs have been drawn up for four passenger versions. The first provides 34 seats for day travel. The second offers 32 day seats which, by an ingenious conversion system, can be altered to become 16 sleeper berths for night travel. The third, designed for shorter travel stages, has 50 passenger seats; and the fourth version is designed on de luxe Pullman car lines with club saloon for 20 passengers. Provision is made in all these versions for a crew of at least six, including two pilots, one flight engineer, a radio operator, navigator and one or more stewards.

The pressurized cabin will permit travel at altitudes "over the weather," in the calm and cloudless upper air. It is anticipated that the *Hermes* will be able to travel without inconvenience to passengers at heights up to 25,000 feet.

Special heating is installed to maintain an internal temperature of 70 degrees even when externally the air temperature is as low as 70 degrees below freezing point. Likewise, safeguarding the aircraft against the most deadly enemy of modern flying—ice formation which has been known to overload an aircraft in a matter of seconds and cause a fatal accident—wings, engines, airscrews and tail surfaces are equipped with de-icing apparatus. Fuel tanks aggregating 2,750 (English) gallons of gasoline are grouped in the wings. They will provide enough fuel for a range of 2,000 miles even against strong head-winds.

Four compartments are available for the stowage of baggage, freight or mail, and the loadings are distributed to spread the weight along the fuselage. The total space available amounts to 630 cubic feet. The convenience of passengers is also attended to by the provision of two closets, each fitted with wash-basin and running water on tap.



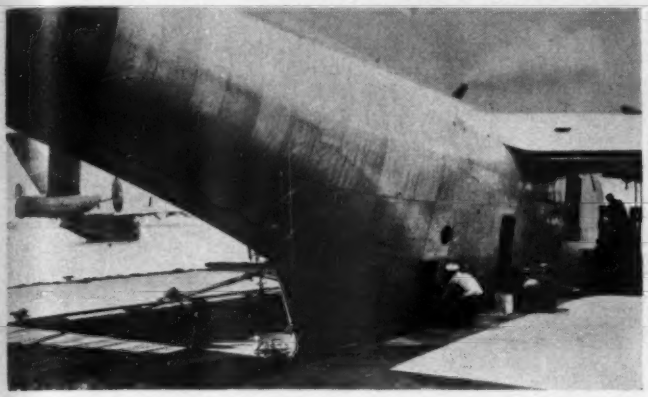
***SPEED'S THE THING**—This is a close-up of the giant MARS in its new berth at the Naval Air Station, Alameda, Cal. Based on standard Navy pontoons, the new dock simplifies cargo handling and servicing of the huge flying boat. It has made possible a five-day turn-around operation between Alameda and Pearl Harbor.*

Mail and Cargo Handling On Martin MARS Sped Up By Navy's New-Type Dock

A SPECIAL U-shaped seaplane dock has been constructed by the United States Navy at the Alameda, Cal., Naval Air Station to facilitate handling of the tremendous quantities of mail and cargo carried by the Martin *Mars*. It also simplifies servicing and maintenance of the giant flying boat.

The new Navy dock serves as a striking illustration of the ease with which giant seaplane handling facilities may be constructed. The basic structure consists of standard Navy pontoons over which a three-inch wire mesh concrete deck has been laid after covering the crevices between the pontoons with tar construction paper. A temporary form was used to contain the sides of the wet concrete, but was removed as soon as the decking hardened.

The floating dock itself is shaped like a U and provides platforms at either side of the giant flying boat which may be raised or lowered to a convenient height by taking on or removing ballast from the pontoons. Cleats and other necessary appurtenances are placed at convenient places on the surface of the dock. The dock likewise contains compressed



EASY LOADING *—A member of the beaching crew secures a tail line on the MARS in its new dock, while other sailors prepare to load cargo into its vast hull from a convenient lift truck. With the new dock these trucks can be run alongside the giant flying boat.*

air lines, water lines, gasoline lines and gas fueling pits, electrical connections and a foamite pit which are connected to the pier and shore by use of rubber hoses and flexible conduits.

The *Mars* is berthed in its new nest by cables running to fixed electric winches anchored in concrete foundations on the shore at angles out from the center line of the pier leading to the floating dock. The pier, itself, is so built and joined to the road serving it and to the floating dock that power mules may operate along it with freight carts and draw the carts right along side the *Mars* for the loading and unloading of cargo.

Today the new facility is a major aid in the speeding of loading and unloading of the world's greatest aerial freighter now operating on a five-day turn around basis. The *Mars* is underlining the ease and economy with which ultra-modern facilities for the handling of seaplanes can be constructed in the harbors and waterways of the world's great centers of commerce and population.

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President Roosevelt's Plea to the International Civil Aviation Conference

(Chicago, November 1, 1944)

ON behalf of the United States I offer a hearty welcome to the delegations of the 51 nations represented at this international conference on civil aviation. You were called to undertake a task of the highest importance. I am sure that you will succeed.

The progress of the armies, navies and air forces of the United Nations has already opened great areas to peaceful intercourse which has been closed for more than four black years. We can soberly hope that all Europe will be reclaimed for civilization before many months have passed.

Steadily the great areas of the Pacific are likewise being freed from Japanese occupation. In due time, the Continent of Asia will be opened again to the friendly intercourse of the world.

The rebuilding of peace means reopening the lines of communication and peaceful relationship. Air transport will be the first available means by which we can start to heal the wounds of war, and put the world once more on a peaceful basis.

You will recall that after the First World War a conference was held and a convention adopted designed to open Europe to air traffic; but under the arrangements then made, years of discussion were needed before air routes could actually be flown. At that time, however, air commerce was in its infancy. Now it has reached maturity and is a pressing necessity. I do not believe that the world of today can afford to wait for several years for its air communications. There is no reason why it should.

Increasingly the airplanes will be in existence. When either the German or the Japanese enemy is defeated, transport planes should be available for release from military work in numbers sufficient to make a beginning. When both enemies have been defeated they should be available in quantity. Every country has airports and trained pilots; and practically every country knows how to organize airlines.

It would be a reflection on the common sense of nations if they were not able to make arrangements, at least on a provisional basis, making possible the opening of the much-needed air routes. I hope, when your conference adjourns, that these arrangements will have been made. Then all that will be needed will be to start using the air as a great peaceful medium instead of a battle area.

You are fortunate in having before you one of the great lessons of history. Some centuries ago an attempt was made to build great empires based on domination of great sea areas. The lords of these areas tried to close these seas to some and offer access to others and thereby to enrich themselves and extend their power. This led directly to a number of wars, both in the eastern and western hemispheres. We do not need to make that mistake again.

I hope you will not dally with the thought of creating great blocks of closed air, thereby tracing in the sky the conditions of possible future wars. I know you will see to it that the air which God gave to everyone shall not become the means of domination over anyone.

As we begin to write a new chapter in the fundamental law of the air let us all remember that we are engaged in a great attempt to build enduring institutions of peace. These peace settlements cannot be endangered by petty considerations or weakened by groundless fears. Rather, with full recognition of the sovereignty and juridical equality of all nations, let us work together so that the air may be used by humanity to service humanity.

CHICAGO CONFEREES HEAR PROPOSALS BY EXPERTS

Berle and Swinton Air Their Countries' Plans

IT was Assistant Secretary of State Adolph A. Berle, Jr., chairman of the United States delegation to the international civil aviation conference in Chicago, who, on Nov. 2, announced officially the policy of the United States Government. This policy was to organize postwar international air commerce on the basis of freedom for competitive enterprise.

The United States, he said, was happy to offer to the world non-exclusive, non-discriminatory reciprocal rights of "innocent passage," multilateral agreements on international rules of air, and other technical problems related to meteorology, communication, quarantine regulations, safety devices, landing rights and bilateral agreements—but it insisted on guarding its sovereignty of the air. This for reasons of military security, technological progress, and commercial prosperity.

Mr. Berle pointed out that "the great air routes are not as yet sources of profit to the carriers, or indeed to the nations fostering them, but rather have been developed at large expense by subsidies and other assistance." He added that "it would seem neither equitable nor just that routes so developed should be claimed by other countries, not for the purpose of maintaining their own communications, but merely for the purpose of speculating in the possible profits of a commerce worked up by others among themselves. In this respect the air routes of the world are more like railroad lines than like free shipping."

"These problems may well be left for later conferences," he said. "It is probably best not to try to see too far into the unknowable future. . . . So far as this country is concerned, the United States has made public the routes which it will endeavor to obtain by the friendly exchange of permissions of transit and landing between it and the countries concerned. It is prepared to discuss like permissions with other countries seeking intercourse with the United States, and it hopes that similar agreements may be worked out between the other countries. . . ."

The British Plan

Lord Swinton, British Minister for Civil Aviation and head of the United Kingdom delegation, stated the British plan which would set up an international air authority with sweeping powers to divide air traffic on the basis of international cartelization to fix quotas, frequencies of service, and rates. The effect would be that of restricting competition.

The counter proposal of Mr. Berle was, as one newspaperman wrote, that (in effect) "the British accept the Washington plan for an international air convention on technical matters, and an international air body with powers limited to the 'consultive' sphere on political and economic issues—for the time being; with an understanding that as time went on its powers might be increased through an evolutionary process when, as, and if experience proved it advisable."

Mr. Berle also pledged this country not to use its "huge wartime reservoir and productive capacity to manufacture transport planes for monopolistic purposes." Instead he would release them to other countries desirous of competing in postwar commercial aviation, which naturally would include Britain.

The British delegate went on record as saying that he was not averse toward competition in the ordinary sense of the word. What he opposed was "disorderly" competition. An Anglo-American compromise has been indicated at this writing.

Complete international ownership of all international air facilities in a single company has been proposed by D. G. Sullivan, chairman of the New Zealand group. A. S. Brakeford, who heads the Australian delegation, was favorably disposed toward Mr. Sullivan's plan.

Besides Mr. Berle, the following are representing the United States:

Secretary General: Warren Kelchner, Chief, Division of International Conferences, Department of State. *Special Assistants:* James Espy, Foreign Service Officer, Department of State; Morris Nelson Hughes, Foreign Service Officer.

Technical Secretary: Theodore P. Wright, Administrator of Civil Aeronautics, CAA, Department of Commerce. *Special Assistants:* Thomas B. Bourne, Director of Federal Airways, CAA; John M. Chamberlain, Assistant Director, Safety Bureau, CAB, Department of Commerce; Douglas D. Crystal, Senior Attorney, Aeronautical Legal Division, CAA; Fred M. Lauter, Director of Safety Regulation, CAA.

Secretaries and Assistant Secretaries of Technical Committees and Subcommittees: Harry A. Bowen, CAB; Paul T. David, Bureau of the Budget, Executive Office of the President; Alfred Hand, CAB; Robert D. Hoyt, CAB; Alfred S. Koch, CAA; Delbert M. Little, Weather Bureau, Department of Commerce; Virginia C. Little, Bureau of the Budget, Executive Office of the President; Erwin R. Marlin, Bureau of the Budget; Kenneth Matucha, CAA; John T. Morgan, CAA; Jeremiah S. Morton, Coast and Geodetic Survey, Department of Commerce; George O. Neal, CAB; Howard Bailey, CAB; Lloyd H. Simson, CAA; Omor Welling, CAA.

Executive Secretary: Clarke L. Willard, Assistant Chief, Division of International Conferences. *Assistant Executive Secretary:* Lyle L. Schmitter, Foreign Affairs Specialist, Division of International Conferences.

Chief Press Relations Officer: Lincoln White, Office of the Special Assistant to the Secretary of State. *Press Relations Officers:* William H. Donaldson, Superintendent, House Press Gallery; Joe S. McCoy, Jr., CAA; Raymond Nathan, CAA; Ben Stern, CAA.

Liaison Secretaries: Philip O. Chalmers, Acting Chief, Division of Brazilian Affairs, Department of State; Raymond A. Hare, Foreign Service Officer; Charles M. Howell, Jr., Civil Air Attache at Rio de Janerio, Brazil; Paul W. Meyer, Foreign Service Officer; A. Ogden Pierrot, Civil Air Attaché at Lisbon and Madrid; Robert B. Stewart, Division of British Commonwealth Affairs, Department of State.

Geographer: Samuel W. Boggs, Chief, Division of Geography and Cartography, Department of State. *Cartographer:* Arthur J. Hazes, Division of Geography and Cartography.

Administrative Secretary: Millard L. Kenestrick, Chief, Division of Administrative Services, Department of State. *Operations Officer:* R. M. F. Williams, Division of Administrative Services. *Assistant Operations Officer:* Victor Purse, Office of Departmental Administration.

Technical Documents Officer and Secretary for Documentation: John O. Bell, Aviation Division, Department of State. *Assistant Technical Documents Officer:* R. B. Maloy, CAA.

Chief of the Interpreting and Translating Bureau: Guillermo A. Suro, Acting Chief, Central Translating Division, Department of State. *Assistant Chief of the Interpreting and Translating Bureau:* Jean Pierre de Loeschnigg, Office of War Information.

Director of Air and Courier Services: Major John R. Young, War Department Liaison Officer, Chief, Air Priorities Section, Division of Foreign Service Administration.

Secretary for Transportation and Special Services: Daniel H. Clare, Jr., Department of State. *Assistant Secretary for Transportation and Special Services:* Albert Fletcher, Department of State. *Finance and Disbursing Officer:* William J. Heneghan, Division of Budget and Finance, Department of State. *Personnel Relations Officer:* Virginia Brittingham, Division of Departmental Personnel, Department of State. *Editor of the Journal:* Frances Armbruster, Division of Research and Publication, Department of State. *Archivist:* Ruth K. Wailes, Division of International Conferences, Department of State.

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1919 - 1944 25TH ANNIVERSARY

25 YEARS OF CONTINUOUS INTERNATIONAL SERVICE

3¢ a mile?

Dr. Van Zandt Says It Can Be Done, and to Prove His Point He Has Drawn a Vast Picture of Aerial Travel

WITHIN 10 years after the termination of the war technological improvement and operations in volume will bring the air travel rate down to the almost unbelievable rate of three cents a mile.

No less an authority than Dr. J. Parker Van Zandt forecast this drastic lowering of the rate in his special report for the Brookings Institution entitled *Civil Aviation and Peace.* He stated that some four million Americans with incomes of from $3,000 to $10,000 will have been given the opportunity to make the bargain trips overseas every year.

"The war has enormously stimulated our interest in foreign places," he said. "There can be little question that large sections of the American public are eager to travel abroad, provided only that suitable transportation services and fares are available. The size of this potential market, however, is not easy to measure.

"A recent careful nation-wide survey provides a significant clue: a cross-section of American upper-income urban groups was tested representing 10 million families, or about 27 million individuals 18 years of age or over. In response to the question: 'If you could fly from New York to Europe for $200 round trip after the war, do you think you might go?,' 67 percent said 'yes.' This implies a possible potential market from upper-income city groups of 18 million prospects for travel to Europe at $200 round trip. If the individuals composing this section averaged slightly over one trip abroad *once every five years,* they would make on the average four million passenger trips annually."

Dr. J. P. Van Zandt

Big Coming Market

Dr. Van Zandt declared that addition surveys of recent date confirmed the existence of "a huge potential market" if prices were brought within reach and the services made attractive.

"A leading woman's magazine, for example, with a circulation of several millions, wrote as follows to a representative panel of its subscribers: 'If airplane flights to Europe cost $200 round trip after the war, do you think you will go?' Allowing for a reflected written answer in place of a personal interview, a much wider cross-section of income groups, and the more positive phrasing of this question, an average of 51 percent still answered 'yes.' These replies are the more remarkable when it is recalled that prior to the war women represented less than one out of every

five passengers on United States domestic airlines."

The author stated that "another way to evaluate a potential travel volume of four million oversea trips a year is to compute how many persons would be required from various income groups to make up this volume." A tentative analysis, he added, "suggests that the great bulk of potential oversea travelers will be drawn from income levels between $3,000 and $10,000." Dr. Van Zandt went on to cite the influence of the last decade:

"The remarkable spread of the practice since the middle thirties of granting vacations with pay will stimulate latent travel propensities of the middle- and lower-income groups. Approximately 60 percent of all union workers in 1943, for example, had agreements providing for paid vacations, compared with 25 percent in 1940.

"From New York to Paris is 3,675 miles, via Botwood, Foynes and London airports. At three cents a mile the one-way fare would be $110. Round-trip fares, at twice one-way less 10 percent, would cost just under $200. At 200 miles an hour (which includes a liberal allowance for landings at intermediate airports and other delays), the crossing would take about 18 hours each way. *Eighteen hours to Paris for a round-trip of $198!*"

Dr. J. Parker Van Zandt has been active in both the domestic and international aviation field for over two decades. He is a pilot, holding license No. 17, with several thousand flying hours.

During the First World War he served for a time as a volunteer in the French Army before the arrival of American troops in Europe. While an officer in the U. S. Air Corps, he pioneered in blind flying and organized the Air Navigation Branch of the Air Corps Engineering Division at Dayton, Ohio. He has served as an officer of various airlines, as European aviation representative for the Ford Motor Company, and as general representative for Pan American Airways in the Pacific area during the development of the Pacific airline.

From 1939 to 1941 he was consultant to the Civil Aeronautics Board. After a year in South America for the Government in connection with the elimination of Axis aviation activities there, he returned to Washington and organized the Office of Air Transport Information in the Department of Commerce.

Since July, 1943, he has been Director of Aviation Research with the Brookings Institution, an internationally known research organization devoted to public service through research and training in economics and the social sciences.

Dr. Van Zandt is the author of numerous publications, an Associate Fellow of the Institute of the Aeronautical Sciences, member of the science honor society and Sigma Xi.

FRENCH AIR GIANT

Even while Germany held its foot on the prostrate form of France, French technicians, working in "underground" laboratories in forests and in the foothills of the Alps, designed a giant six-engined seaplane called the Late 631, and had the parts ready for assembly when the allies clambered onto the beaches of Normandy. This new plane is described by the Air Ministry as potential competition for the famous Glenn Martin Mars.

"Undreamed Of" Possibilities

He predicted that all sorts of possibilities—"undreamed of"—would result from this lowering of the passenger mile. Dr. Van Zandt said that "millions of Americans would be willing to sit up one night for a chance to visit Europe on such terms." Others desiring luxurious accommodations would be willing to pay for them. Out of this would be born "an entirely new travel pattern," with customers from every part of America ready "to sample trips all over the world."

"From Chicago to Edinburgh, Scotland," he said, "a round-trip air fare (at double the one-way rate of three cents per passenger mile, less 10 percent) is $200. This is about one-third prewar minimum surface first-class rates and four-fifths minimum third-class rates. Yet the round trip by air would cut 11 days off the surface journey.

"To Santiago, Chile, a round trip would cost $287, with a saving in transit time of more than a month. Lima, Peru, would be 24 days nearer, round trip, with the one-way fare only 40 percent of the lowest prewar surface rate.

"Round trip to Chungking would save 48 days, at a total cost of $400. Rio would be about a day's journey from Chicago. Rates at the three-cent level would carely exceed, and in most instances would be very much less than, minimum surface third-class fares."

Dr. Van Zandt underlined the fact that "with no interesting place on earth more than two days away, and rates at this level, the volume of traffic which would eventually develop between the United States and the rest of the world would be enormous."

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CATERERS TO THE AIRBORNE

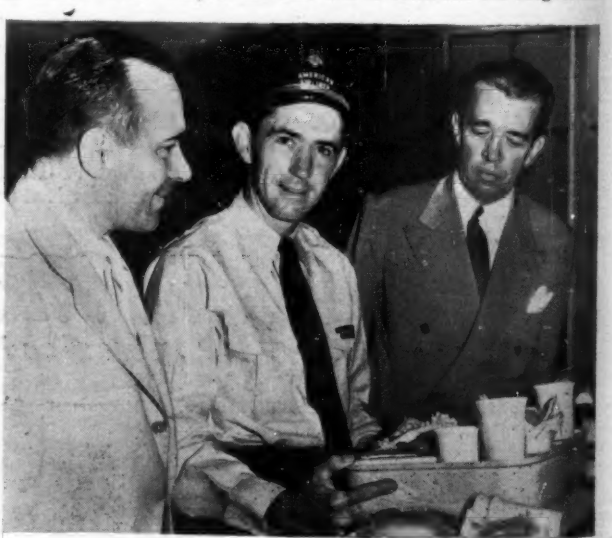
This is the story of Jimmie Dobbs, who, with Horace Hull, built up one of the finest automobile agencies in the country —and then, for good measure, established the largest independent airline catering service in the world.

By A. L. Roby

THE stewardess was air-sick. Which was very bad, for that was in the days before the Air Transport Command had made transoceanic flights a matter of routine in the eyes of the average person. And even four years ago the young stewardess was supposed, by her composure and casual attitude, to assure unseasoned passengers that there was nothing to it . . . flying was as simple as a spin in a motor car, and air-sickness was a word in the dictionary.

But this particular young thing was not only air-sick, she was scared to death. Her pretty blue eyes were glassy and her knees were beating out a rhythm that wasn't boogie-woogie. That morning for the first time she had donned the snappy blue uniform with the gold wings of a full-fledged flight angel. And now she was alone, with the responsibility of serving dinner to 21 passengers glaring in her greenish-tinged face.

She was beginning to wonder if she had made a ghastly mistake in becoming an airline stewardess when a passenger, a spare man in his forties, with brownish hair and a friendly grin, sensed the stewardess' plight, and offered to serve the meal for her. She accepted gratefully. And it was then the idea began to crystallize that was to establish the largest in-



FOOD FOR AIR PASSENGERS *— One of the biggest customers of the Hull-Dobbs system is American Airlines which seems to agree that good food is a good talking point for the airborne. Inspecting a typical dinner are (left to right): John L. Babcock, superintendent of airline catering service for Hull - Dobbs; Jimmy O. Connor, station manager for American Airlines at Memphis; and Jimmy Dobbs, himself.*

***THE PROOF OF THE PUDDING**—Yes, the proof of the pudding is in the tasting. On the left is shown how a Hull-Dobbs meal is prepared for American Airlines at Memphis. The winsome girl on the right displays a typical meal. The days of flat coffee and cold sandwiches are gone. Even in the air, winging from New York to California, piping hot meals are served.*

dependent airline catering service in the world.

For as the passenger, whose name was James K. Dobbs, began to serve the food he was struck with the low quality of the poorly packed food. The coffee was barely warm and the trays were unattractive and without decoration. The meal would have spoiled the appetite of the most ravenous passenger. And Jimmie Dobbs resolved then to work out some plan where airline passengers could be served hot, well cooked, tastefully served meals.

Airline Officials Willing

He knew he would have the cooperation of airline officials. They realized the importance of good food and wanted their passengers to have the finest that money could buy. The difficulty lay in obtaining this type of service. It was this that Dobbs was determined to give them.

Today the flying guest aboard one of the silver-winged airliners serving "Meals by Hull-Dobbs" will be handed an attractive tray at meal time by a comely stewardess or hostess. The tray will offer strained vegetable or asparagus soup, piping hot and tempting, fresh salad with home-made salad dressing, prepared from a special recipe in one of the Hull-Dobbs kitchens, or perhaps a mixed vegetable salad with French dressing. And there will be charcoal broiled lamb chops with a garnish of parsley, tender cuts of steak, or perhaps Southern fried chicken, crisp and golden brown. Ice box rolls, baked in their own kitchens, bread and butter, pickles, watermelon rind pickles, or spiced olives give added zest to the meal, which is topped off with butterscotch or chocolate pudding with a fluff of whipped cream. And the coffee is hot! Small wonder many a traveler often takes a plane in preference to a train because of those tempting meals served aloft.

But Jimmie Dobbs didn't jump headlong into the food business overnight. Food, and the business of preparing it, had fascinated him ever since childhood and had woven a pattern through his life beginning when he was a freckle-faced kid back in Avondale, a suburb of Birmingham, Alabama.

As a youth he sold papers, peanuts, and jerked sodas. It was several years before Jimmie was concerned with chefs and cuisine. But his destiny was leading him in a circle back to the point where he could really capitalize on his hobby. For three years he sold

shoes in Birmingham, and then he came to Memphis to sell automobiles. It was there the streak of luck began that ultimately enabled him to realize his ambition. For his employer, the late J. T. Fisher, whose memory Jimmie reveres as being a sort of benevolent angel graced with understanding and a kindly heart, staked him to the amount necessary to go into business with Horace H. Hull, in opening the Hull-Dobbs Motor Company.

Hull Enters Picture

In Horace Hull, Dobbs found a staunch and true business teammate. Hull, too, found the road to success hard and paved with many obstacles. He earned his way through school waiting on tables, sweeping floors and picking up laundry. Hull graduated from Vanderbilt University in 1906 as a civil engineer.

Horace Hull directs the automotive activities of the organization. He is conservative, cool and patient, while his counterpart, Jimmie Dobbs, is dynamic, aggressive and full of far reaching foresight and vision. After years of private engineering practice Hull returned to Memphis, became assistant city engineer. That was in 1918. When John Fisher offered both Dobbs and Hull a stake to set up an auto agency, the latter resigned his city engineering job and teamed up with Dobbs, organizing the Hull-Dobbs Company, Ford dealers, in 1921.

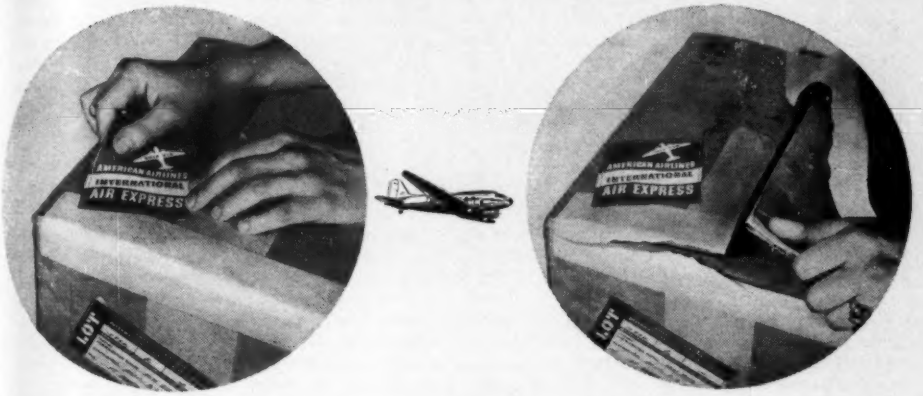
Today Hull operates five automobile agencies. His Memphis Ford agency for the past five years has sold more cars and more parts than any other Ford dealership in the world.

Back in 1936 the future of the automobile business looked dark, but Dobbs was determined to expand. And since there was no room for expansion in the automobile business he turned to his first love—the food business.

The first Hull-Dobbs Houses were an experiment, placed miles apart in Richmond, Va., and Columbus, O., in order to test the public's reaction in widely different sections of the country to its special meals. The reaction

***GUINEA PIGS**—No offense meant, but that's just what they are, in effect. As part of the extensive studies made by United Air Lines on the subject of tomorrow's superliners, United employes are trying out new ideas in meal service in a mock-up of the four-engined Douglas 44- and 56-passenger planes ordered for the postwar period. Stewardess Jean McDonald serves a hot, full-course meal as Mrs. Jean Arbogust, UAL dietician, gets comments from the "passengers."*

IT'S MERELY A MATTER OF HOURS BETWEEN PACKING and UNPACKING



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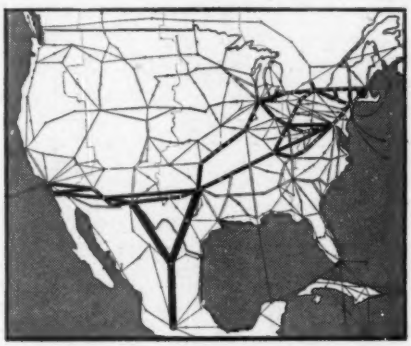


AMERICAN AIRLINES *Inc.*

THE NATIONAL AND INTERNATIONAL ROUTE OF THE FLAGSHIPS

may be seen in the 40-odd miniature colonial dwellings, in white brick with green shutters and charmingly landscaped lawns, set off with chains or enclosed in white picket fences, that dot the countryside from Massachusetts and Connecticut, down country and across the Catskills in New York, New Jersey, in Pennsylvania and across the Alleghanies into Ohio and westward up through Illinois, Wisconsin, and back to Michigan.

There are no cashiers in these little establishments to ring up your money. Hull-Dobbs Houses employ the honor system, so patrons simply drop their checks and money into the little automat cashier at the door. The automat seldom checks short, and then never more than fifty cents a month, while quite frequently the amount dropped in exceeds the total of the checks.

Pearl Harbor Comes

But expansion of the Hull-Dobbs Houses was automatically curtailed after that memorable day in December, 1941. So Jimmie began to cast about for other fields to till. Gradually his attention had become more and more engrossed with the food end of the Hull-Dobbs Enterprises, while Horace Hull was concerned with the automotive end. So the idea was born aboard the airliner the day he came to the rescue of the air-sick stewardess.

Tempting, tasty, well served meals aloft! The idea swept him on like a roaring fire, blotting out all obstacles in a smoke cloud of determination. His associates advised Dobbs against it. Bankers advised him against it. This was no time, they said, to attempt the elaborate catering service he envisioned. He would need buildings . . . he would need equipment. Commissaries containing modern kitchens would have to be built, which meant modern cooking equipment and refrigeration facilities such as were no longer being manufactured.

There was the manpower shortage to consider. Women couldn't load and drive trucks and service airplanes with food and drink at all hours of the day and night; they couldn't manage the commissaries. But Jimmie Dobbs proved they could.

He first proved his theory at Memphis, where he took over the restaurant at the Municipal Airport and began operating as airline caterer for American Airlines and Chicago and Southern Air Lines. And today 11 of the 20 major airlines, including Eastern, Braniff, National, Delta, Pan American, Continental, Northwest, Pennsylvania Central and Transcontinental & Western Air serve meals by Hull-Dobbs.

In short order airline passengers flying out of Jackson, Miss., Atlanta, Chicago, New Orleans, Amarillo, Wichita, Birmingham and, more recently, Dallas, were given a taste of Hull-Dobbs food, as one by one Jimmie Dobbs stuck pins in a map, so to speak, and decided where he would next establish his catering service. He also operates the airport restaurants at Amarillo, Birmingham, Chicago, Jackson, Miss., Memphis, New Orleans, Atlanta, Dallas and Wichita, and plans eventually to open still more such restaurants to give the opportunity of dining on Hull-Dobbs fare to those who have their feet on the ground as well as on a winged cabin floor.

Air Catering Problems

There were problems aplenty and still are. The catering service Dobbs intended to give could not be perfected overnight. Once he had contrived to set up workable conditions for preparation of the meals he was confronted with the question of how to keep the food at the proper temperature, when frequently it must be put aboard plane several hours before it was to be served. Huge thermos bottles would hold the food at a desired temperature.

But eggs, properly cooked at take-off time become brick-hard if kept at a high temperature till meal time. Finally Hull-Dobbs caterers learned by trial and error to place the eggs, only slightly cooked, in heated casseroles where they will continue to cook slowly aboard plane. So now the passengers are greeted at breakfast with as delicious a serving of scrambled eggs as ever graced the skillet of the most fastidious chef.

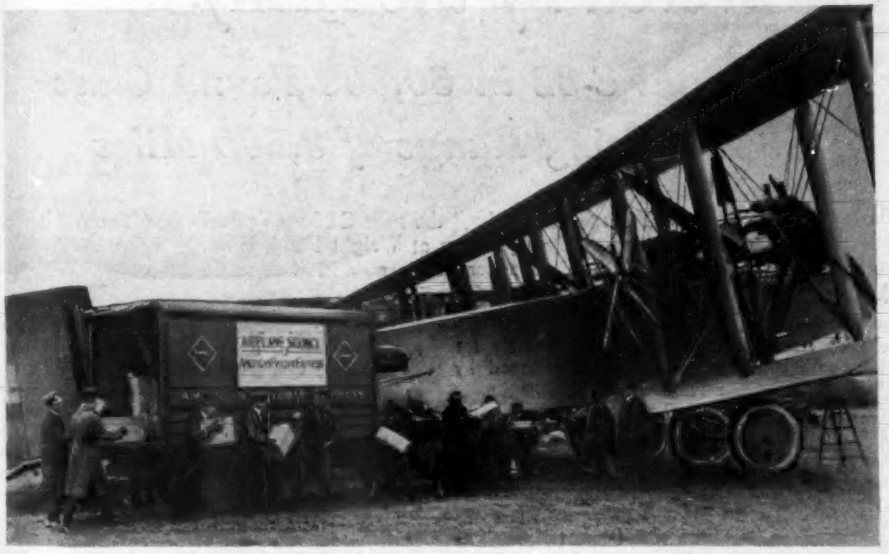
Experiments proved that water put on the plane at 38 degrees was the proper temperature for drinking about an hour later. For coffee the thermometer shot up much higher to 198 degrees. Every thermos bottle is inspected and tested for temperature when placed on the plane.

But the Hull-Dobbs airline and airport catering service doesn't end with the preparation of the meals. That's only the beginning. For the planes have to be stocked. The Commissary is never notified as to the number of meals to prepare until about an hour before flight time. Which means that a probable 21 full meals must be cooked and placed aboard plane within no more than an hour-and-a-half after receiving notice from the airline's reservations department to go ahead.

Recently one commissary serviced five planes within two hours, which entailed preparation and packing of 105 meals within this period. At such a time a standby crew is needed. But commissary crews are on call at all hours of the day and night.

Dobbs has no time to look back—only forward and onward. Already he is mapping plans for further expansion and he is ready to serve the passengers of other airlines. Jimmie Dobbs did not introduce the idea of meals aloft, but there is none who will deny he is helping to perfect it.

***PEACETIME TRANSPORT**—This is what the new Curtiss CW-20E Commando will look like when it sheds its Army gear. Recognized as the biggest and fastest twin-engine transport plane in the world, the Commando is the company's bid for the immediate postwar transport business. It is already on order by a number of major airlines. The Commando has a wing span of 108 feet, is 76.31 feet long, and has a maximum gross landing weight of 46,400 pounds.*



***SILVER ANNIVERSARY**— This month is the 25th birthday of air express. The scene pictured is Mitchel Field, Long Island, where a four-motored Handley Page bomber, originally built to bomb Berlin, waits to take on cargo from an American Railway Express (Railway Express Agency's predecessor) truck. The date: November 14, 1919. Pilots were the late Admiral Mark Kerr, RN, and Major Brackley, RFC, and the ship carried a crew of four and two passengers. After eight hours' flight, however, the craft encountered strong headwinds over the Alleghenies and made a forced landing at Mt. Jewett, Pa. The cargo was promptly transferred to the local express office and loaded on the first westbound train. Incidentally, this was the earliest recorded instance of coordinated air-rail service—an important part of air express operations today.*

***PROUD AIR CARRIER**—Fairchild's new C-82 in flight looks like nothing else but the monicker it carries: Truck Horse of the Sky. Powered by two radial Pratt and Whitney R-2800 engines, the plane has a range of 3,500 miles*

Truck Horse of the Sky Uncovered by the Army

Fairchild C-82 in 50,000-Pound Class With Flying Range of 3,500 Miles

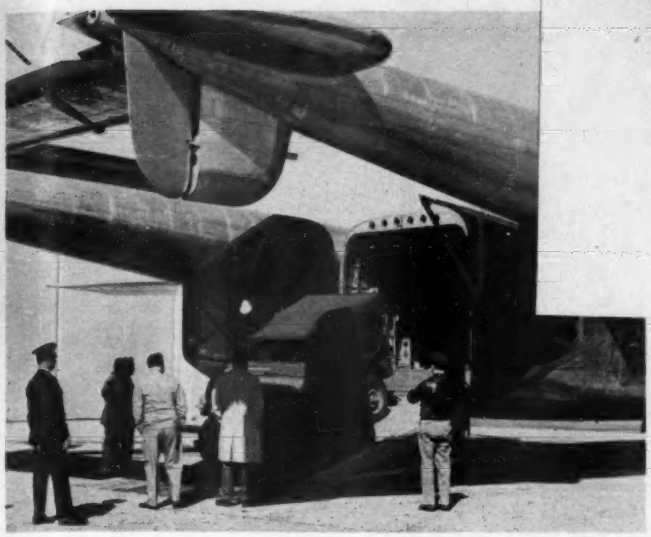
DUBBED "the truck horse of the sky," the new C-82 was revealed by the Air Technical Service Command Headquarters at Wright Field, Ohio, to be in the 50,000-pound class with a range of 3,500 miles. It is now in production at the Hagerstown, Md., plant of the Fairchild Aircraft Corporation.

The C-82 is reputedly the first airplane designed from the drafting board up solely for hauling military cargo. It was developed by Fairchild in conjunction with ATSC engineers and was built specifically to land heavy military loads safely on rough fields near battlefronts. The plane is expected to be especially valuable for jungle and island fighting in the Pacific.

Unlike any airplane now being used to carry freight, the C-82 has a twin-boom tail, such as that on the P-38 Lightning fighter and the P-61 Black Widow night fighter; two radial Pratt and Whitney R-2800 engines with a take-off horsepower of 2,100 each, mounted at the forward ends of the booms; a wing span of 106 feet; wings of gull design; tricycle landing gear and a streamlined after-end that opens to the complete height and width of the interior. The fuselage inerior is square, to allow stowage in corners, and the bottom of the fuselage is the height of a truck platform from the ground, allowing freight to be stowed directly from a truck. The huge rear door permits rapid loading or unloading.

The C-82 was flight-tested for the first time only two months ago, after two years of work by Fairchild and Wright Field engineers. Benny Howard, the veteran flyer, put the "truck horse of the sky" through its paces before a limited audience of engineers, executives and workers at the Hagerstown Municipal Airport. Although it is in the 25-ton class, about twice the size of the familiar DC-3 airliner, the airplane was designed to carry troops, paratroops, tanks, jeeps, heavy guns and other weapons or military supplies to distant battlefields.

It is estimated by Fairchild engineers that the C-82 can carry as many as 76 passengers by day and 30 by night in upper and lower berths on each side of the aisle. As a luxury liner it would carry 50 passengers in reclining chairs. Less than an hour would be required to convert the plane for freight.



AIRFR... OF TODAY

No sm...

C-82 can easily be converted into a 76-passenger airliner. Note how the descending jeep is dwarfed by the high tail booms.

Talman of TWA Tells CAB 400,000 Will Fly from U.S. Within 3 Years

ACCORDING to E. Lee Talman, executive vice president of Transcontinental & Western Air, Inc., almost 400,000 United States citizens and resident aliens will be transferred to Europe by air by 1947. This prediction was made by Mr. Talman before the Civil Aeronautics Board.

The TWA official estimated that United States carriers would transport 75 percent this number. Pointing out that if granted their route TWA will transport 75,700 passengers across the North Atlantic annually within three years, Mr. Talman said that the New York area will supply 33,200 of this total.

He appeared as a witness in behalf of his company's application for an operating certificate between the United States and Calcutta, as the first link in a route around the world. The first airline in the world to seek such a route, TWA proposes to operate the service from United States coterminals at New York, Boston, Philadelphia, Washington, Detroit, Chicago, Seattle, and San Francisco.

Mr. Talman said that TWA would expect to serve 25 percent of the available volume in its transatlantic operations which would be conducted with 300 mile per hour *Constellations* at passenger fares of 5.5 cents per mile, express rates of 50 cents per ton mile, and deferred cargo at 25 cents per ton mile.

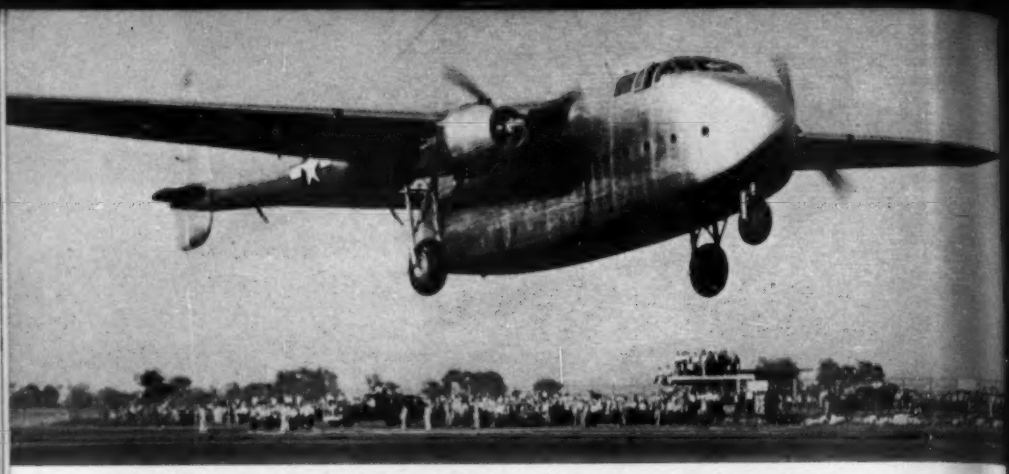
World Air Route

Planes would leave New York and fly eastward via Newfoundland, Greenland, Iceland, and Scotland to London, Paris, Berlin, Istanbul, Cairo, and other foreign ports, with Calcutta as the terminal point of this segment.

The official explained that the estimates of passenger travel are based upon two factors: the volume of ocean surface travel available before the war, and the volume of new traffic which a strong system of international United States airways would generate. He predicted that much of the new traffic would be business travel.

Mr. Talman emphasized that the fast TWA service to London would save New York businessmen days of travelling as compared with surface transportation. Considerable out-of-pocket savings likewise would be affected, he claimed, adding that the TWA rates are lower than pre-war first class steamship fares.

He said he expected the air services to transport traffic equal to 50 percent of the volume of projected first class steamship travel in 1947 and 25 percent of the projected tourist class travel. Mr. Talman stated that he believed that additional created traffic would equal 75 percent of the diverted traffic.



***PROUD AIR CARRIER**—Fairchild's new C-82 in flight looks like nothing else but the monicker it carries: Truck Horse of the Sky. Powered by two radial Pratt and Whitney R-2800 engines, the plane has a range of 3,500 miles*

Truck Horse of the Sky Uncovered by the Army

Fairchild C-82 in 50,000-Pound Class With Flying Range of 3,500 Miles

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CARGO SPECIAL ***—Fairchild's brand new Truck Horse of the Sky marks a definite advance in long distance, big-volume sky-freight. Vast quantities of cargo — particularly perishables—can be transported quickly in this air giant. The C-82 can easily be converted into a 76-passenger airliner. Note how the descending jeep is dwarfed by the high tail booms.***

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AIRFREIGHTING PERISHABLES

No small problem is the transportation of perishables by air. There are numerous possibilities; and the author, who incidentally is manager of perishable traffic for a major airline, has left no stone unturned. Nor is he horrified by the problem of airfreighting meats, for he points confidently to new markets and profits.

By J. Prescott Blount

United Air Lines

As an introduction to the subject, the reader should be asked to consider why it is that inanimate things like mail, repair parts, fresh fruit or meat, will justify the substantially higher transportation costs for the sake of speed.

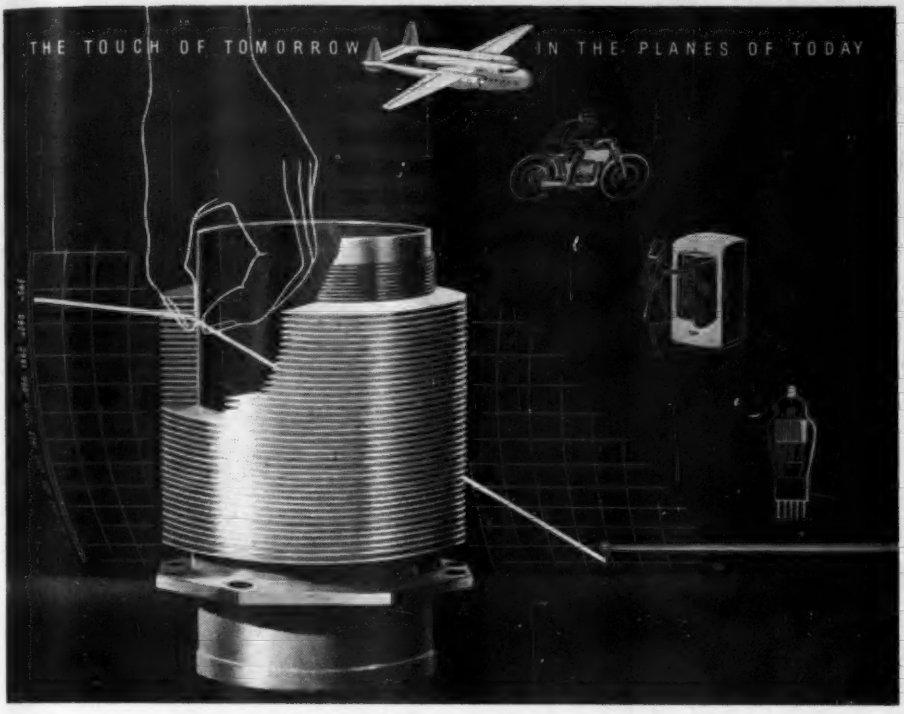
First, let's consider mail, which after all is the commodity that in large part accounted for the formation and development of our domestic air transport network, and helped create the highest standard of air service enjoyed by any nation in the world. Mail has always sought and utilized the fastest practical transportation service. It took to the air in 1918. Today about two-thirds of all mail moving distances greater than 600 miles, travels by air in constantly increasing volume, and at a premium of almost three times the surface rate. The reason is obvious. Time is money. Whether the stamp you put on a letter costs three cents or eight cents may be of little moment if *time* is a consideration. By the same token, it is confidently expected that shippers of small parcels, many located on rural country routes, will soon have air parcel post to serve them, when the value of time exceeds the additional expense.

Next, let's examine the articles which normally move by air express—not war priority traffic, but the things for which, even before the war, the saving in time was so important that a rate approximately seven times rail express was paid. First on the list are repair parts. After this we have style merchandise, news periodicals, transcriptions and flowers, etc. In most cases, the cost of transportation is a secondary factor.

Future Is Bright

But what of the future? If this were the whole story, there would be little point in writing this. Air transportation has indeed a bright future if it is to handle the large increase in passenger traffic predicted; a bright future when we handle all long haul first class mail; a bright future when we handle the greatly expanded volume of air express which will accompany lower rates; and finally, a bright future when we handle a fabulous tonnage of perishable air freight. What are perishables? Generally speaking, perishables are those commodities which are subject to damage from heat or cold. There can be no doubt but that the important volume of flowers moving by air prior to the war is only a drop in the bucket compared with what we will see in the years immediately ahead. Our investigation into this field of business indicates a probable important change in the geography of the industry brought about entirely as a result of the availability of this new transportation medium.

The big metropolitan markets of the east have always provided a demand for what most of us might consider luxuries. During the winter in New York, in the days before the refrigerator car, fresh vegetables were considered a luxury. Acres of greenhouses sprang up to fill this demand. Then came the refrigerator car in 1888 and a tremendous development of the vegetable industry followed in Florida, California and finally Texas. Vegetables no longer were a luxury, and flowers instead of vegetables were grown in those same greenhouses. Spokesmen in the flower industry predict that in the Age of Flight their future supplies will come from the south



Milestone in Metallurgy

In 2,000 B.C., man alloyed copper with tin to make bronze.

In the 14th century, craftsmen fused iron with carbon to make steel.

In the 19th century, man first successfully welded one ferrous metal to another.

Today, as a result of Fairchild engineering and research, *man can now join aluminum to steel!*

Through its application to aircraft engines—the chemical bonding of aluminum to cylinder barrels—Fairchild engineers have been able to achieve far more rapid dissipation of heat—greater development of horsepower without increasing piston displacement. The Al-Fin cylinder is being used exclusively on all higher-power Ranger engines.

The future of the Al-Fin principle in aviation and other heavy-duty industries is assured.

It also has wide possibilities in the consumer field—refrigerators and radio tubes, motorcycles, family planes and autos. In appliances for home, office, factory and farm, the Al-Fin process can effect decided improvements.

As you consider their magnitude consider what makes them possible—the research and engineering of an organization whose credo is "The Touch of Tomorrow in the Planes of Today."

BUY U. S. WAR BONDS AND STAMPS

FAIRCHILD ENGINE AND AIRPLANE CORPORATION

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Ranger Aircraft Engines Division, Farmingdale, L.I.
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Fairchild Aircraft Division
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Duramold Division, New York, N. Y.
Affiliated: Stratos Corp., New York, N. Y.

and from the Pacific Coast—regions where flowers grow cheapest and best. They will be flown overnight to all major markets. Tulips will fly in from Holland and Easter lilies from the West Indies.

What will happen to those greenhouses that once produced vegetables and then changed to flowers? Perhaps they will produce penicillin, or with some conversion, mushrooms. Business is contantly adjusting itself to new trends. One big flower shipper tells me that several months ago he advised his growers to double their acreage so that this winter and next spring they could handle the demand anticipated as a result of the probable return to the airlines of a lot more ex-army transport planes. This is a very interesting case of advance planning.

Fruits and Vegetables

Let's leave the flower industry and turn to another potential field for perishable air freight that, in my opinion, will within ten years exceed all other producers of air cargo. I refer to fresh fruits, melons, berries and vegetables.

For some time we have been convinced this would have immensely important, especially to air carriers so situated geographically that they could develop year-around tonnage, loading at origin and unloading the same plane at principal markets. While there is actually tremendous potential volume in this field, it is recognized that very low rates will be necessary in order to move any important part of it.

After making a considerable study of the problems involved in accurately estimating our potential volume of fresh fruit and vegetable traffic, as well as studying the packaging and marketing problems to be overcome, United Air Lines decided to join with Wayne University of Detroit, and the Great Atlantic and Pacific Tea Company in a joint survey: United to procure and transport each of the commodities to be studied; Wayne, with its Home Economics Department and laboratory facilities, to study quality and nutritional values, conduct taste panel work on comparison between airborne versus surface borne commodities selected for study, and interpret results; and A & P to provide the vital machinery which will measure consumer demand, by actual market tests in selected stores in our various metropolitan centers.

It was felt that only in such a complete study could be obtained the practical answers to the questions of *which* commodities will find their way into the air; *what* premium the consumer is willing to pay; and *how* to solve the difficult problems of selecting proper packages to protect and merchandise the riper, more fragile and more costly fruits, vegetables, melons, and berries.

On Tomorrow's Airways

It is not too early to give a preliminary estimate of the types of fruits and vegetables we expect to see on tomorrow's airways. First, we will see an interesting assortment of things that will either be entirely new to our eastern markets, such as nectarberries and Queen Ann cherries from our Northwest, and ripe papayas and natal plums from Southern California; or things that are entirely out of season, such as California strawberries, during the fall months, and field-ripened tomatoes in mid-winter. These things represent entirely *new* traffic.

Second, we expect to develop some most interesting data on the specific benefits in vine or tree-ripe quality versus "commercial" quality of such items as peaches, nectarines, tomatoes and fresh figs. By carefully controlled experimental rail and air shipments of comparable samples to be tested in the laboratory and tasted by a competent jury, Wayne should give us some excellent data to pass along to the prospective customer.

Third, we have commodities such as spinach, and perhaps peas, cauliflower, asparagus and sweet corn, which if prepared at origin for final consumption by trimming, shelling, husking, etc., can eliminate perhaps half of its original weight, and at the same time make possible the saving of precious minutes of kitchen preparation by busy housewives.

These last two classifications, while not putting a completely new product on the market, do dress up staple items in new ways, making them worth the additional cost of air transportation to the purchaser in whose hands, after all, lies the ultimate success or failure of any selling enterprise.

The meat packing industry is an immense business, but in comparison with the fruit and vegetable industry, is in the hands of a very few operators. This has the advantage of being well financed, well equipped with research kitchens, and better able to experiment with new marketing methods and new products. However, there is the disadvantage that through this industry's very size there have already been worked out by far the most efficient and economical methods of handling, storage and transportation enjoyed by any part of the food industry today. These methods of distribution appear to me to be practically bulletproof. It presents, at first glance, a discouraging market for a young, and at present, underequipped and expensive means of transportation.

Economy Through Volume

I have briefly reviewed the anticipated development of fresh fruits, vegetables, flowers, and I might well have added sea food as potential air freight. We can be sure of one

thing. Just as the meat packing industry found it could improve efficiency and economy through volume business, enabling it to own its own fleets of refrigerator cars, so the air industry can be counted on to improve its efficiency and lower its rates with the development of traffic volume and refinement of equipment.

At this point there come to mind a few lines of a speech presented a year ago by the chairman of the Civil Aeronautics Board, L. Welch Pogue:

"We know also that there are being developed exclusive air cargo planes, devoid of the requirements of passenger planes, designed wholly for the business of hauling cargo, and we know that the cost for the operation of those planes is going to be less than that of present planes. If air transportation today can develop nearly 30 billion pound-miles of express at a rate of 80 cents a ton-mile, I believe it is clear that a rate of 30, then 20, then possibly 15 cents a ton-mile will develop air cargo to a point where the most sanguine enthusiast for air transportation will take pride in describing its volume in terms of *ton*-miles.

"I should not be surprised if at some time in the future the revenue received by the air carriers from the carriage of cargo were to exceed the combined revenue now paid by passengers and mail. This development will take place as a result of the operation of fundamental economic principles. Services which make money have a habit of becoming popular. Transportation which creates *new markets* and stimulates old markets to new activity will grow despite all efforts which might be made to restrain it. Air cargo will make these contributions."

Mr. Pogue made those remarks a year ago, and he is proving himself a wise prophet. Already, industry and transportation blueprints for postwar expansion are following the pattern.

On the subject of equipment, it is interesting to note that our present DC-3 transport planes have a capacity of about 1,200 cubic feet. They can carry a load of from 5,500 to 7,000 pounds under civil air regulations. This means an average of about five pounds per cubic foot. A refrigerator meat car has a capacity of about 1,600 cubic feet, and carries a load of about 21,000 pounds. This gives a weight of 13 pounds, assuming the full space was occupied. As the average cargo handled by airlines runs in the neighborhood of 13 pounds per cubic foot, it can readily be seen that thus far bulkiness has not been a problem. The tendency is to reach the maximum weight limit long before all the space is utilized. Indications are that as the rate

(*Continued on page 60*)

The Author

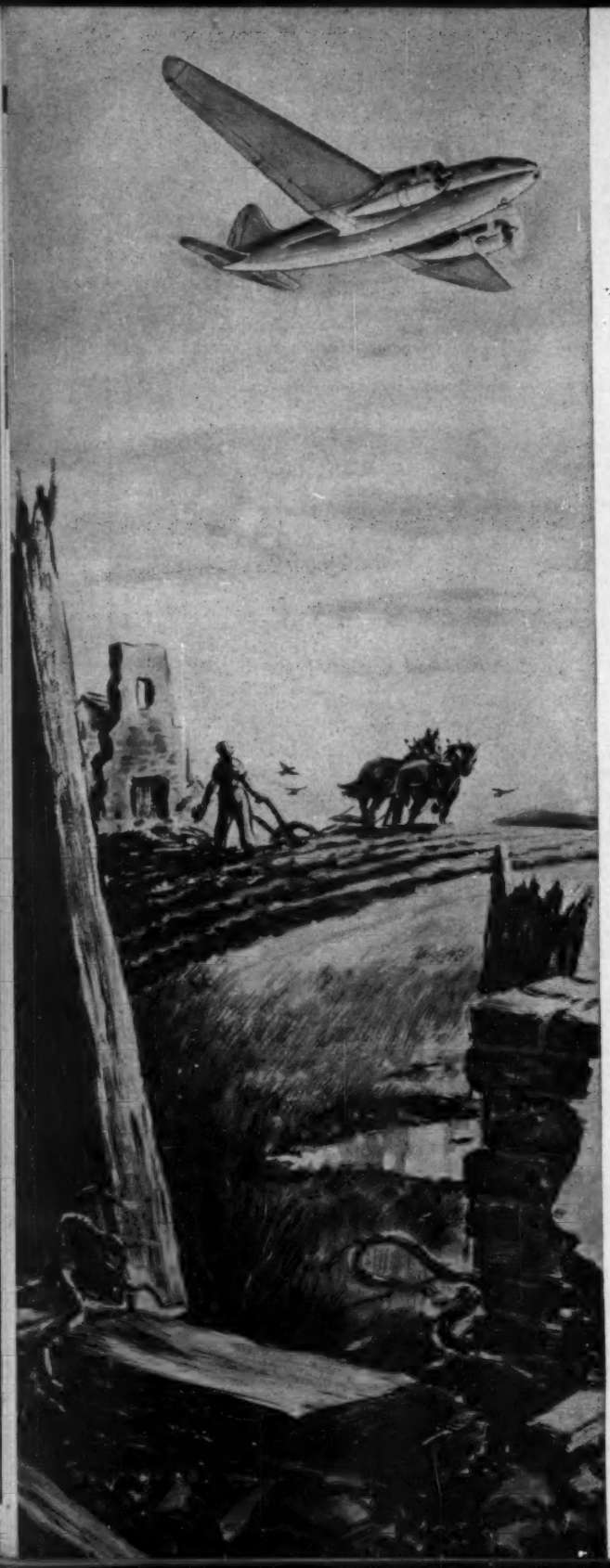
Associates call him "Perishable" Blount—but his name really is J. Prescott Blount and his title is coordinator of air-rail cargo for the air cargo department of United Air Lines. The nickname has been acquired through Blount's missionary work in pointing up the possibilities of shipping perishables by air.

Mr. Blount, a native of Washington, D. C., has had long experience in the field of transportation and allied industries. In between semesters at Cornell University he had his first close contact with perishables as manager of a commercial apple orchard in Virginia. Then, following his graduation in 1936, he was successively with the Freight Container Bureau of the American Association of Railroads in New York City, the Southern Box and Crate Association at Shreveport, La., and, again, with the Freight Container Bureau of the AAR at New York.

He began to gain national fame as a pioneer in shipping perishables by air shortly after he joined United Air Lines' air cargo department in July, 1943. One of his first experiments was with baby chicks. Working with the University of Illinois, he made several hundred chicks "air minded" by moving them aboard United's Cargoliners between Chicago and San Francisco—and he found that the results were excellent.

Next he became involved in air shipments of sample lots of fruits, vegetables, flowers and seafoods. In connection with a survey begun by United Air Lines, Wayne University and the Great Atlantic & Pacific Tea Company, he made numerous trips to the Pacific Coast to gather such perishables and to arrange for their shipment to taste clinics at Detroit and New York. Particularly noteworthy was the movement of a full plane-load of such items—amounting to more than three tons—from Seattle to San Francisco to New York where they were displayed and tasted at a perishables clinic luncheon.

Blount is an enthusiastic believer in the possibilities of moving perishables by air after the war—and he already has made a start in that direction through the successful experiments already completed.



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REHABILITATION WILL BE SPEEDED

Rehabilitation of conquered countries must move speedily to prevent starvation, spread of disease and chaos. In this great humanitarian task Air Transportation is playing a vital role as it rushes food, medicines, seeds, clothing and even machinery to revitalize stricken areas.

Curtiss Commandos, with their large cargo capacities, speed and dependability, are contributing their share to the common task as they wing vital relief to peoples throughout the world.

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Airplane Division, Buffalo, N. Y.

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★ LOW BIDDER FOR
TOMORROW'S AIR COMMERCE

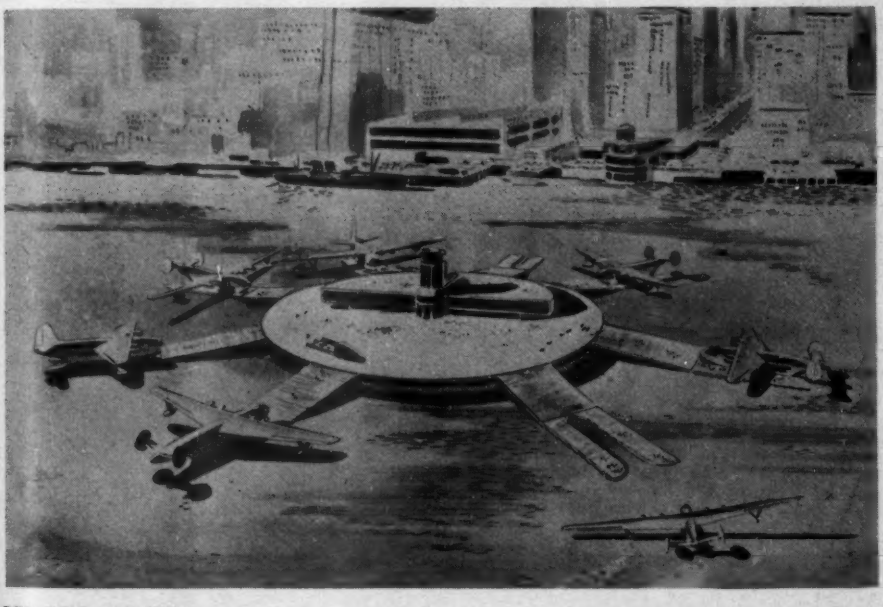
Seaplane Terminals Designed By Glenn L. Martin Engineers

Revolutionary Plans Aimed At Cities With Heavy Air Traffic

DESIGNS for high-traffic flying boat terminals for large cities, based on the belief that seaplanes offer America a quick advantage in world trade immediately after the war, have been released by Glenn L. Martin, president of The Glenn L. Martin Company. As an integral part of the plan, Mr. Martin exhibited the design for a unique horseshoe-shaped tug of high maneuverability for the handling of the flying vessels in congested harbor waters and in docking the winged leviathans.

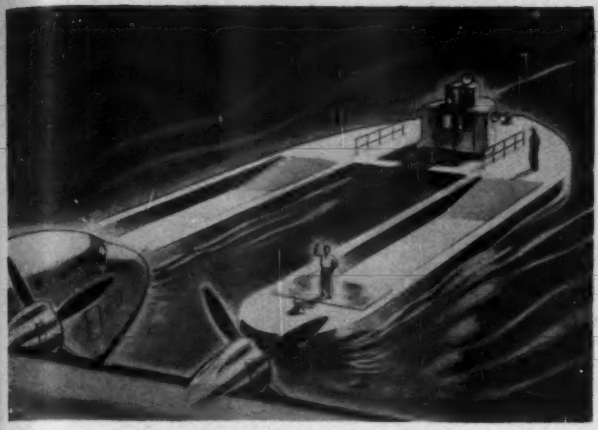
Contending that "flying ships don't have to wait for a great chain of expensive world airports" and that "they can go almost anywhere on earth," Mr. Martin declared that flying boats have suffered in the past from lack of adequate handling facilities in high-density traffic ports. There is no reason for them to be bound to outlying airports, when it is so easy for them to be taken directly into the commercial hearts of cities, he pointed out.

The Martin terminals, developed by the company engineers, would be relatively inexpensive, and would require no great area of land, but would use only a modest strip of harbor shoreline for its terminal building and service hangars. One design is in the shape of a pier, jutting into the harbor, with floating tidal docks for the loading and unloading of passengers, mail and cargo. The U-shaped tug would be used to dock the ships in these slips



***ISLAND TYPE**—This is the island type of terminal for ocean air leviathans. More expensive than the rest, it can be built in inner harbors and connect with the shore by a tunnel. Tidal docks are at the perimeter of the circle and the terminal building in the center.*

***PIER TYPE** — Jutting from a terminal building in an inner harbor, this Martin plane pier promises interesting results. Horseshoe-shaped tugs tow the air giants to floating tidal docks, after which the tugs duck under the pier and are free for another tow.*



***U-TUG**—The U-shaped tug is highly maneuverable. It carries heavy-duty outboard motors, fore and aft. The propellers of each motor turn through a range of 360 degrees, enabling the tug to turn a vessel practically "on its heel."*

and then would proceed under the pier and away for another assignment.

Another design, admittedly more costly, is a great circular affair built offshore in the harbor and requiring very little shore space. The terminal building is in the center of the circle and the tidal slips are ranged around the perimeter of the circle. A tunnel would connect the terminal to the land. Still another design would be built along the shoreline, employing a system of high-speed cable handling for the beaching and launching of the vessels.

Full Turns Possible

The tugs are built around three high-performance outboard engines—one on each leg of the horseshoe and the other at the bow. Each of these engines would be capable of turning a full 360 degrees, thus allowing it to turn a giant flying ship "on its heel." These tugs would meet incoming vessels taxiing in from the water landing areas and would tow laden craft from the terminal to free water for take-off.

"If the greater carrying capacity, the greater safety, and the greater place-to-place flexibility of the flying boat are to be used to best advantage, special terminals must be built for them," Mr. Martin said. "At that, the cost would be but a tiny fraction of the cost of building vast airports that could conceivably handle landplanes ranging from 150,000 to 500,000 pounds. Yet we must have very large aircraft, for they markedly affect ton-mile and passenger-mile costs in inverse ratio to the size of the aircraft. Availability of payload is the only practical limit to the size flying boats can be built."

Mr. Martin, in clarifying his advocacy of the flying boats, said he favors them only in very large sizes and for very long ranges, on transoceanic and intercontinental operations. He admits that the landplane has advantages over the boat in smaller sizes and shorter ranges. Martin engineers recently brought out a new design for a speedy, economical short-range landplane transport.

"But as aircraft move in size above the 100,000-pound mark, the flying ship gains increasing advantage," the pioneer flyer and manufacturer maintained. "The advantage in speed of the landplane narrows as size goes up until it reaches negligible proportions at around 200,000 pounds.

"Meanwhile, the other advantages of the flying boat are increasingly apparent. In any size, the flying boat carries half its gross load in disposable load. That is not true of the landplane, where the proportionate weight of its landing gear increases greatly with increased size."

Other advantages cited by Mr. Martin for the large flying boat are increased safety over both sea and land; the ability to operate to and from any country on earth, wherever there is protected water; and roomier, more comfortable interiors.

The Ice Bogey

Mr. Martin scouted the ice bogey often advanced as an argument against flying boats.

"All but an infinitesimal proportion of the population of the world lives below the ice line," he explained. "And in even such marginal ports as New York, Pan American Airways has been operating flying boats with almost no interruption to schedules.

"When you consider that so much of the world's trade is based on seaports, the importance of the flying ship becomes obvious, for these vessels have limitless, indestructible runways waiting for them everywhere. Consider that practically all the large commercial centers of Latin America are built on navigable waters.

"The flying ship does not have to wait for

great airport-building programs, however vigorously they may be pursued. Concrete runways of 10,000-foot lengths to accommodate landplanes of 200,000 pounds would cost several million dollars each, according to some reliable estimates. Besides, I doubt if other nations—South American countries, for example—can undertake as elaborate an airport chain as the United States can. It would be doubly difficult in countries where ground transport has not been built up as has ours."

Mr. Martin explained that his flying boat terminals are intended only for large cities with heavy air traffic. He pointed out that in ports of call having light traffic, even barges can be used to load and unload the vessels. One version of his horseshoe tug is designed to form a landing and traffic-handling stage in light-traffic ports.

Electrically-Driven Airliners Predicted

Transoceanic air liners of the future may be powered by electric motors that will enable the giant ships to carry greater loads, for longer distances at a substantial saving in fuel.

The use of electric drive on multi-engined planes would eliminate much of the air resistance, or drag, caused by engine nacelles built in the wings or by engine and propeller mounted in the nose of the fuselage. In present-day planes, this drag may waste from 20 to 40 per cent of the horsepower output of the engines. Because electric motors are much smaller than the modern gasoline engine, they can be submerged entirely in the wing structure, offering practically no resistance to air flow.

Engineers attending the Los Angeles technical meeting of the American Institute of Electrical Engineers heard this prediction in a paper presented jointly by Lt. Col. T. B. Holliday of the U. S. Army Air Forces, William L. Berry of the Hughes Aircraft Company, and Frank W. Godsey of the Westinghouse Electric & Manufacturing Company.

With electric drive, the power plant—consisting of new high-speed power sources and electric generator—could be placed in the fuselage of the plane. This concentration of weight in the center of the plane would increase the maneuverability of the craft and provide a convenient "shock absorber" to withstand the recoil of heavy machine guns and cannon in giant bombers.

Since motors may be sunk in the wings, the electric drive system would make possible the use of pusher-type propeller located at the rear of the wing, instead of the present-day tractor type. At high speeds, pusher-type propellers provide increase lift to the wings and a corresponding reduction in drag, caused by the turbulence of the propeller slip stream over the wing.

Chief disadvantages of electric drive in airplanes, it was pointed out, resulted from increased power plant weight, lower efficiency between fuel tank and propeller shaft and increased cost of power plant. But these could be offset by using fewer and lighter materials in the power plant, propellers, plane structure and accessories and by re-designing planes to eliminate aerodynamic drag.

While this is the biggest task facing electrical engineers in the near future, it is only one of many obstacles to be overcome before the completely electrical airplane is a reality. Automatic protection of all electrical equipment from power sources through feeders and circuits to the individual apparatus is another goal which engineers have set for themselves. Another is to squeeeze as much electrical power as is possible from the limited space available for generators. Since 1939, this output has been increased 15 times, from two watts per cubic inch to 30 watts per cubic inch.

CW-20 Cargoplanes Ordered by National; New Service Opened

National Airlines placed an order for a $5,000,000 fleet of Curtiss-Wright CW-20 transport planes last month. Negotiations were completed between G. T. Baker, president of National Airlines and Curtiss-Wright officials at the NAL base in Jacksonville.

These cargoplanes are now being flown extensively over the world. The bulk of traffic flown over the Hump between India and China has been carried in these planes.

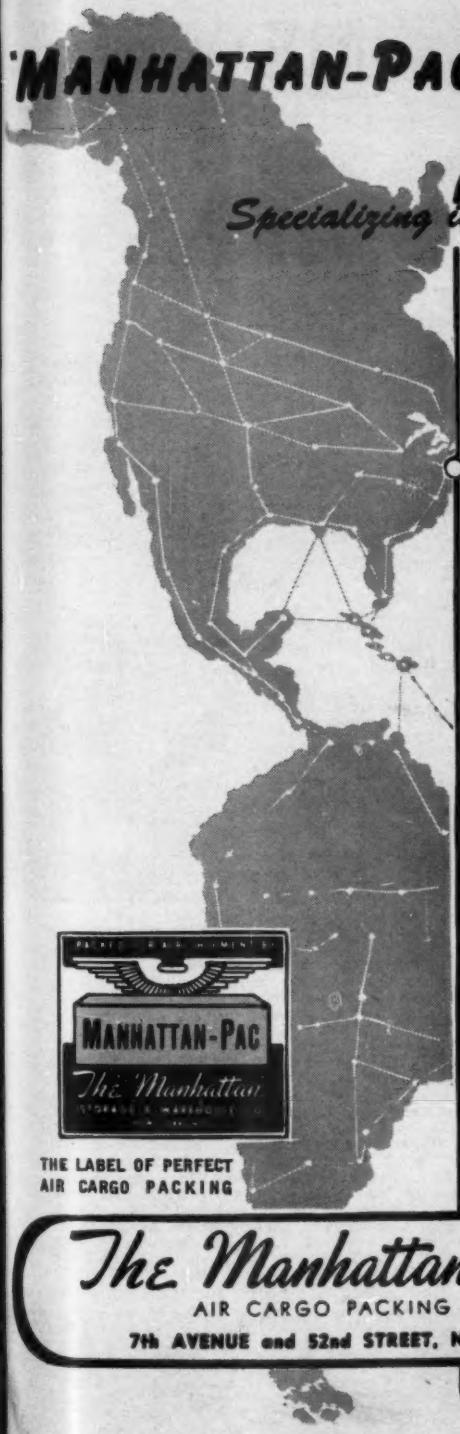
The first plane of a fleet of 16 will be received by National in the summer of 1945. These transports accommodate 42 passengers and have a cruising speed of 240 miles per hour. National will reduce substantially the flying time between all points on The Buccaneer Route with this new equipment. The new equipment program includes both large twin engine transports for low-cost mass transportation and deluxe four-engine airliners carrying 60 and more passengers with a speed in excess of 300 miles per hour.

National has inaugurated service between Florida, New Orleans, and New York City, using its Lockheed Lodestars.

Delta Issues New Booklet

Welcome to Southern Skies is the title of a 20-page booklet in four colors just issued by Delta Air Lines of Atlanta, Ga., for distribution on its airliners and for direct mail. A pocket inside the front cover will carry route strip maps, post-cards, luggage stickers and miscellaneous material which will be changed from time to time.

"MANHATTAN-PAC" FOR AIROBUTION



Specializing in Air Cargo Packing

The new era of air cargo transportation is actually here . . . bringing with it a new science of packing, new methods of merchandising and distribution, new packing materials—and even new words.

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Looking ahead, and recognizing the need, The Manhattan Storage & Warehouse Co. inaugurated a special division for Air Cargo Packing and Distribution. All of its facilities, experience and personnel are at your disposal to provide your particular air cargo shipment with scientifically correct packing to insure lightness, strength and weather resistance.

We invite your inquiries on any of your air-cargo packing problems.

**Cargoes by John Masefield.*

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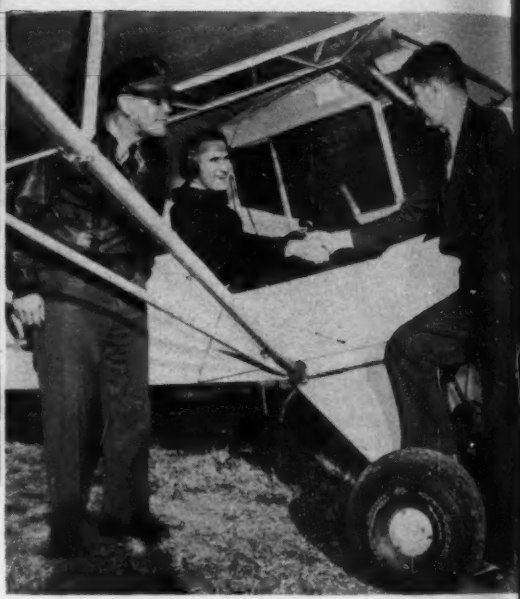
NEWS and VIEWS

THE FIRST SLICE IS MINE—That is what G. W. Vaughan, president of Wright Aeronautical Corporation and of the parent Curtiss-Wright Corporation, is probably thinking as he poises his knife over the handsomely decorated cake. The occasion is the silver jubilee of Wright Aeronautical.



IT'S NEVER TOO LATE—Apparently that is what H. E. Blythe, vice president and general manager of the Goodyear Aircraft Corporation, Akron, Ohio, believes. Although well along in his fifties, Mr. Blythe has just mastered the art of piloting an airplane. He is an old-time balloonist and blimp pilot.

VISITORS FROM PERU—Raul Barrious (center), general manager of Sociedas Mercantil Internacional, S. A., of Lima, Peru, inspects the Curtiss automatic engine synchronizer during a visit to Curtiss-Wright's Caldwell, N. J., propeller plant. With him are William Reeks (right) of Curtiss-Wright's expert sales division, and Herb Roggins (left), the plant's installation engineer.

SAFETY TALK—Gilbert F. Tyler (left), industrial safety superintendent at Pan Am's transatlantic terminal, La Guardia Field, greets Jack C. Curtis (right), safety director for United Air Lines, who presided at the meeting of the executive committee of the air transport section of the National Safety Council. Seated, left to right, are: A. D. Caddell, National Safety Council; Jerome Lederer, Aero Insurance Underwriters; Peter Marconi, American Export Airlines; Lew Palmer, National Safety Council; Walter T. Johnson, American Airlines; and Dr. Ludwig Lederer, PCA. Standing in the background, left to right, are Edward T. Lee, Eastern; Andrew Pyros, United; Fred T. Grieme, CAA; and Dr. Frederick H. Shillito, Pan Am.

WANTED: Uniform Air Cargo Shipping Documents

Viewed from the eye of an expert in such matters is the subject of the phenomenal rise in airborne merchandise and the inadequate airway bills now used. This article will be read by importers with particular interest.

By William R. Strelow

Vice President, Guaranty Trust Company of New York

THE war has witnessed a substantial growth in the transportation of merchandise by air. Critical materials have been flown from remote areas and our air forces have established new sky trails for use in the post-war period. The rapid technical advances in this field were accelerated by the pressing needs of war and the air imports to this country by plane have been substantial. The Office of War Information reported that the air imports between January 1 and June 30 of this year totaled 22,000,000 pounds, worth about $79,000,000. While this represents only a fraction of one per cent by weight of the ocean cargo imports during that period, it demonstrates that shipment by air has great potentialities and we have had much valuable experience for future development.

There is no thought that in the foreseeable future air transport will replace the steamship, but I believe that much urgently needed merchandise such as machine parts or drugs, where speed is the primary essential and cost is secondary, will go by air. Also the shipping of light but valuable cargo and cargo subject to rapid deterioration, or small sample shipments, will make greater use of air transportation.

Aside from the foregoing classes of shipments the cost of transportation will be the prime consideration. No doubt air freight rates will be reduced from time to time, but the disparity is still great when one considers that the cost per long ton for air shipments from Rio de Janeiro, Brazil, to New York, is over $3,000, as against about $40 by steamer.

Still in Infancy

Air cargo transportation is a relatively new enterprise and the documents, practices, and regulations are still in an early stage of development. The Civil Aeronautics Act of 1938 contains no specific regulations concerning shipping documents, and there is a great lack of uniformity in the provisions of the airway bills now in use. A careful study of this subject was recently made by a Committee of the Bankers Association for Foreign Trade, and they have brought to the attention of many of the airlines doing an international business the need for clarification and uniformity of practice, so that the rights of all parties involved may be better defined and understood.

International traffic between the United States and certain foreign countries is governed by the rules and regulations of the Convention for the Unification of Certain Rules Relating to International Transportation by Air, concluded at Warsaw in 1929, known as the Warsaw Convention. Adherence to this convention was ratified by the Senate of the United States, with reservations, on June 15, 1934, and declared by the President on June 27th of that year.

The articles of the convention contain rules with regard to the airway bill and define to some extent the rights and obligations of the carrier, consignee and consignor. The regulations, which have the force of law, apply only to transactions between countries that have ratified the convention. In addition to the United States this convention has been ratified by most of the countries of Europe and their territories, including the British Empire, and the Colonies of the Netherlands, Spain, Belgium and France. However, in the Western Hemisphere, aside from the afore-

mentioned colonies, only the United States, Brazil and Mexico have ratified the convention. Canada has neither ratified nor adhered to the convention.

There was also a commercial aviation convention between the United States and other American Republics signed in Havana, on February 20, 1928, which was ratified by the United States Senate on February 20, 1930, and proclaimed by the President on July 27, 1931. This convention was ratified by ten Latin American countries. However, it does not contain any regulations concerning air shipping documents, except an agreement to procure as far as possible unification of laws and regulations governing aerial navigation, which regulations are to be communicated to the Pan American Union. The Pan American Union reports that no information on uniform laws adopted with regard to airway bills and shipment of cargo by air has been received.

Air carriers now use a form of non-negotiable airway bill. A negotiable bill of lading is found to be impractical because merchandise would in most cases arrive before the receipt of the bill of lading. A copy of the non-negotiable airway bill is delivered to the shipper but does not need to be produced to obtain delivery. As I have mentioned, there is no uniform airway bill. Airway bill consignment clauses include such phraseology as "Consignee....., Customs Consignee....." with the provision that "delivery of the goods to the Customs Consignee at the airport of destination shall constitute good delivery to the Consignee"; also "Consigned to....., Notify....." with the qualification that when the consignee is one of the carriers or its agent, delivery shall be made to the Notify party.

Provisions are made by certain airlines for consignment to intermediary agencies. One carrier maintains an arrangement for shipments consigned to banks whereby an intermediary express agency is named as consignee and the bank is named as Notify party for account of the bank's customers. The airline considers the bank as consignee of the shipment.

In most of the airway bills the consignor, consignee and/or owner of the goods are made liable for loss, damage, injury or death caused by the goods when their nature has not been fully described by the consignor on the airway bill. The shipper consignee and owner of the goods are also made jointly liable for the payment of charges, advances, fines, penalties, etc. The carrier may sell the goods for any lien but the sale does not discharge liability to pay deficiencies. Some airway bills authorize the carrier to advance duties and taxes.

It appears that these airway bills do not clearly define in whom title to the goods is vested. Consignment to an intermediary agency may create legal complications in the event of a dispute between interested parties. The liability clauses I have mentioned impose upon the consignee many responsibilities, including liability for the actions of the shipper.

It has been the practice with some airlines to permit the shipper to change the name of the consignee without producing the copy of the airway bill which he had received at the time of shipment. This procedure created the possibility that a consignee might pay for documents covering a consignment to him only to find later that the shipment had been diverted elsewhere. However, this situation has been discussed with some of the airlines and the practice is being corrected so that a diversion can only be effected when the shipper produces the original copy of the airway bill for alteration.

Airlines maintain arrangements with insurance companies which permit shippers at their option, and only if they so request, to obtain insurance coverage against all risks except loss or damage resulting directly or indirectly from seizure, confiscation and all consequences of war or civil strife. The amount of insurance obtainable is the shipper's declared valuation for carriage stated in the airway bill. Recovery is limited to actual loss plus 10 per cent, or the shipper's declared valuation, whichever is smaller.

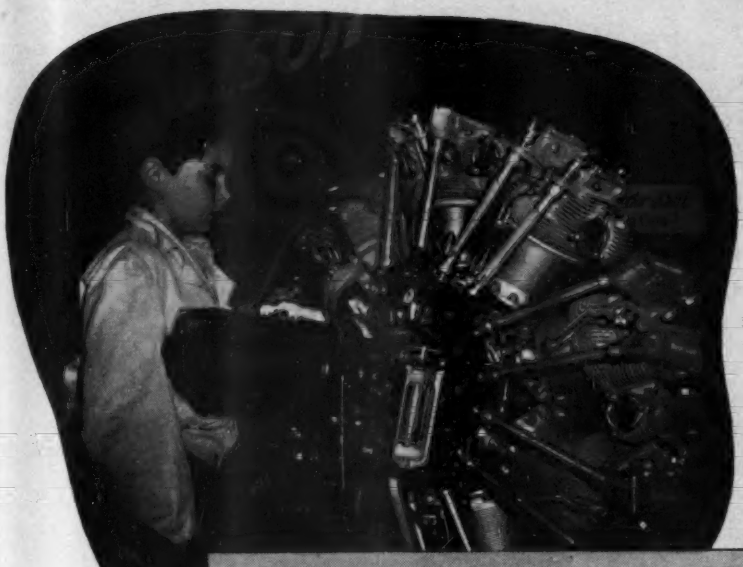
The premium rates are quoted in the tariffs of the airlines. The shipper's copy of the airway bills serves as the shipper's policy of insurance. The insurance is effective from the time the airway bill is issued until the shipment is delivered to the consignee or his agent. Shippers desiring protection against seizure and war risk must make separate arrangements with their insurance companies. Of course, there are certain disadvantages in insuring the same cargo with two companies. It must also be borne in mind that since the airway bill does not clearly define title to the goods a consignee may experience difficulty in obtaining payment of an insurance loss.

Uniform Documents Needed

The problems arising from the foregoing situation are important and must be corrected. Imports are financed by banks with considerable reliance on the collateral value of the underlying goods, but the present documents do not afford such security.

From the experience of those of us who have discussed this matter with the airlines we feel sure that these companies are most cooperative and understanding, but in view of the many countries involved and the many problems peculiar to this mode of transportation it will take time to bring about a satisfactory and uniform procedure.

Probably this subject must eventually be governed by Federal Legislation similar to the Carriage of Goods by Sea Act.



THE YOUTH OF TODAY...

..THE MAN OF TOMORROW

TODAY he dreams of the plane he will fly . . . tomorrow. And he'll fly one, too, for tomorrow's peacetime world will be a flying world—a world of family aviation. Yes, they'll *all* fly, and when they do, they'll fly in planes powered by Diesel engines. Lower fuel consumption, cheaper fuel, no fire hazard, no ignition system, no radio interference, no carburetor icing are among the signposts that point to the Guiberson Diesel as the aircraft engine of American aviation. Guiberson's fifteen years' experience in the field of radial Diesel engineering have produced these advantages — advantages that will help spell Victory today and world leadership for America in the air transportation of tomorrow.

ESTABLISHED 1919

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DALLAS, TEXAS

IT'S AN *Air* WORLD

REG. U. S. PAT. OFF.

By L. A. GOLDSMITH, *Economic Analyst*, AIR TRANSPORTATION

WAR BOND STUNT—Bonwit Teller's of New York hooked up this helicopter with the current Sixth War Loan Drive. For the price of a $100 bond the purchaser is permitted to sit in the plane and fiddle around with the controls. Just another indication of the awareness of air transportation.

NEAT TRICK—This CAVU flight shirt with diagonal closing is one of the popular rages at Bonwit Teller's in New York.

BONWIT TELLER'S Fifth Avenue, New York, store recently held an ingenious and interesting exhibit which highlighted the active interest in aviation. A helicopter, manufactured by the Aeronautical Products Inc., of Detroit, was placed on display on the second floor, and the crowds *came*, *saw* and were completely *conquered*. The reaction of the public, according to the store's officials, was "stupendous"—far more than it had anticipated. Apart from the expected influx of lookers-on, mothers called up to ask if they could bring their youngsters in to get a glimpse of the future, right here and now. The exhibit was crowded all day long. Following the trend of the times, the store tied up the helicopter exhibit as an aid in the sale of war bonds. For the slight consideration of a $100 war bond, the purchaser was entitled to sit in the cockpit and receive "dry" instruction in the flying of a helicopter. The visitors were also given a visual demonstration of how the helicopter works, by Mr. C. B. F. Macauley, formerly editor of the aviation magazine, *Air Tech*, and author of *The Helicopters Are Coming*.

Helicopter On Fifth Avenue Creates Furore in Store Having It On Display

William Holmes, president of Bonwit Teller, voiced his belief in the future of the helicopter in these words: "The coming of the helicopter is probably the most significant development in aviation since the Wright Brothers historic flight at Kitty Hawk 41 years ago." He went on to say that "the helicopter seems to me to bring a new freedom to the people of this country and the world, namely the freedom of travel." Helicopters have aroused the general public interest and with everyone asking where and how about the helicopter, we thought it was wise to bring one directly here so our customers could get the feel of it."

Mr. Holmes and Bonwit Teller evidently sensed this public interest correctly because the favorable response to seeing and "getting the feel" of the helicopter, was really overwhelming.

In addition to the helicopter itself, a fascinating "plus" was provided for the visiting public.

C A V U — Cryptic Trade Name Of Mid-western Flyer — Who Enters Fashion Design Field

This was a variety of specially designed costumes, expressly created for what the store termed future "Heli-Commuting." Naturally, these smart "futuristic" fashions are just as useful and usable for present day occasions in travel and sportswear. These clothes also went over big with the customers who thronged the Helicopter Exhibit. In addition, mail orders have come from all over the country indicating a national response as well as from New York City.

The trade name, CAVU is that of a young Midwestern flyer who has chosen this cryptic cognomen to establish his identity in the fashion field. This name is a simple adaptation of the initials making up the flying term, *Ceiling And Visibility Unlimited.* CAVU's special contribution to the flying fashions shown was a Tailspin shirt which was a perfect sell-out. Designed by a flyer for flyers, the CAVU shirt is made of steel blue gabardine with a slantwise zipper closing. This diagonal closing is to protect the wearer from the prop wash. For fashion as well as flying purposes, the Tailspin was shown with tailored black gabardine slacks.

Other clothes were shown at this Helicopter Exhibit by the well known fashion designer, Vincent Monte Sano. Among other creations by Monte Sano, a royal blue lumberjacket, fur lined for extra warmth, won special acclaim from the numerous customers.

Bonwit Teller stressed the point that these fashions were designed to dramatize the "telescoping of travel time" that will take place, in what they think is the not-so-far-distant future. They already visualize the possibilities of a fashion wise young woman hopping into a helicopter in Canada in the late afternoon and arriving in New York for dinner. They picture her as suitably attired for both helicopter and New York dinner, in a smart gray double breasted suit with furred Tuxedo coat nonchalantly tossed over her shoulders. Of course, they show this costume "as is" of the moment, for immediate wear.

Summing it up, the over-all reaction by the public to these "flight" clothes has been almost phenomenal—so much so that the conclusion is inevitably drawn that this result was undoubtedly stimulated to a high degree by the Helicopter Exhibit. Aviation and the economics of air travel and transport will gain immeasurably if farsighted department store leaders in other parts of the country should see fit to follow Bonwit Teller's example.

THE British Empire now has the record for the longest non-stop ocean flight on a regularly scheduled run. This is the flight across the Indian Ocean from Ceylon to Western Australia. This non-stop flight consumes 27 hours in covering 3,513 miles. As each flight occupies more than 24 hours in the air without alighting, the passengers, are able to view two sunrises on this non-stop ocean hop. For that reason membership in a new order has been established. Every passenger making this is issued a special document certifying that he or she has flown the route and is entitled to membership in the Rare and Secret Order of the Double Sunrise.

Rare And Secret Order Of the Double Sunrise

World's Longest Civil Air Route From England to New Zealand

This non-stop ocean air hop is part of the world's longest civil air route—15,000 miles from England to New Zealand. It has been in operation for over a year. This air transport route has been achieved by linking the British Overseas Airway Corporation flight from England to India, with the 3,500-mile non-stop ocean hop of the company's Australian associate, QANTAS Empire Airways, which flies the route from Ceylon to Western Australia. In the event you are puzzled, the initials of Queensland and Northern Territories Air Services form QANTAS.

Tasman Empire Airways, another associate, flies the final 1,350 miles link from Sydney to New Zealand.

From England, the passengers travel by the big flying boats of the British Overseas Airways via Gibraltar and through the Mediterranean to Cairo.

They fly on over the deserts of Transjordan and Iraq, along the Persian Gulf to Karachi, and then to Ceylon, where they are transferred to the Australian service.

However, in June, 1940, when Italy came into the war, the Mediterranean was closed and the flying boats had to go from England to Lagos via the West African coast, linking up with the transafrican services to form an air lifeline for the troops in the Middle East.

Then the British Link To Australia Was Cut When Singapore Fell

In the development of Britain's empire air routes, a focal point was Alexandria, Egypt. From this city eastward the route ran across the Persian Gulf to India, the Far East and Australia, via Karachi, Singapore, Batavia, Darwin to Sydney. When Singapore fell to the Japs, the Australia link was cut. In July, 1943,

under greatest secrecy, QANTAS began a non-stop flight across the Indian Ocean from Ceylon to Australia, which resulted in the creation of the Rare and Secret Order of the Double Sunrise.

The link was forged again! QANTAS' operation ranks as one of the epic air transport stories of the war.

We are indebted for this story to the Transatlantic Edition of the *London Daily Mail.*

Lieut. Grover C. Siems, Jr., Wounded Air Pilot, Helps Conduct War Fund Drive

Lieut. Grover C. Siems participated in the now historic first shuttle bombing raid, from England to Russia. He was wounded later over Hungary on the second leg, from Russia to Italy.

While home on leave, awaiting complete recovery from his injury, he is actively helping in the National War Fund drive conducted by his former workers at the Farmingdale and Jamaica plants of Ranger Aircrafts Division of the Fairchild Engine and Airplane Corporation. Lieut. Siems' part in the drive is his appearance at rallies held for the day and night shifts at the two plants. He shows the combat film which recorded his own action against the enemy—movies taken automatically each time he fired at an enemy plane or ground installation.

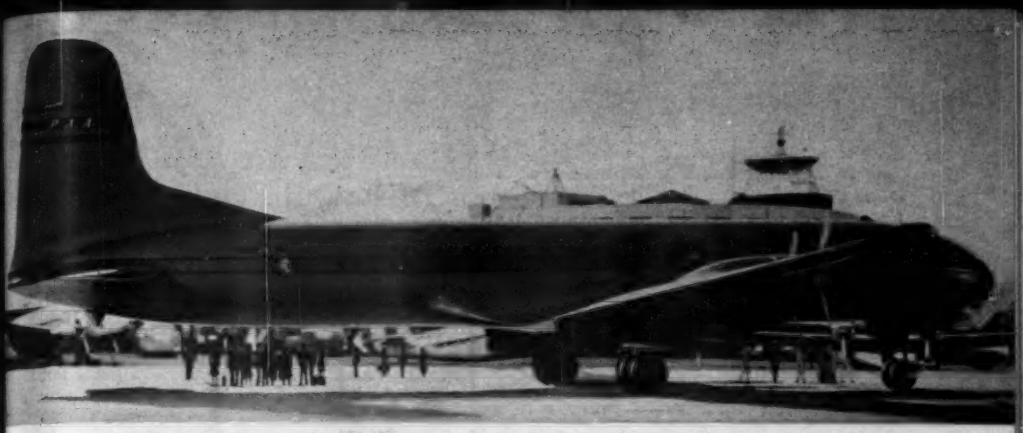
Before Lieut. Siems enlisted in the Army he was an engine tester at Ranger. He is assured of a job in the Flight Test Department whenever he leaves the Army.

This young ace is only twenty-one, but he is credited with the destruction of nine German planes. He is the proud possessor of the Distinguished Flying Cross with an oak leaf cluster, plus the Air Medal with three clusters, as well as the Purple Heart. His fighter group and wing were also accorded a Presidential Citation.

HOME COMES THE PILOT—Lieut. Grover C. Siems, an ace credited with the destruction of nine German planes, finds it fun to sit at his old test bench in the Farmingdale, Long Island plant of Ranger Aircraft Engines while home on leave. He was an engine tester in the plant before he joined the AAF in September, 1943

LET'S FINISH IT—*Back the 6th WAR LOAN*

PEACE ON THE HORIZON— ***William Youngs wields a lusty brush as the disconcerting Helen Hausli, seated 20 feet above the hangar floor, looks on approvingly. Now that enemy danger has been eliminated in the Atlantic area, the grim grey coat of war and the huge American flags on the bow of this huge Clipper at La Guardia Field, N. Y., is being replaced by the peacetime glistening metallic finish.***



***SUPER-CLIPPER—** This is a model of Pan Am's new Douglas DC-7 plane. Designed as a 108-passenger transport, it carries a crew of 13. The new leviathan of the air costs approximately $1,500,000 and uses powerful Pratt-Whitney engines of a new type. The range of the sky giant is 5000 miles, and its wing spread is as great as the height of 16 story building.*

Pan Am Orders 26 DC-7s At Cost of $40,000,000

New Douglas Clippers Reputedly Twice as Big as DC-3 Transports

And now there's a DC-7!

The new, advanced type of giant substratosphere Clipper was developed by Douglas Aircraft engineers working in cooperation with those of Pan American World Airways. Pan Am has ordered a fleet of 26 DC-7s at a cost of $40,000,000. The postwar project is called "the largest and most significant in the history of commercial aviation."

Carrying 108 passengers and a crew of 13 and capable of speeds of more than 300 miles an hour these giant Clippers are expected by company officials to make possible Pan Am's program of mass transportation, bringing "Swift, economical travel within the reach of the average man." Spacious pressurized cabins in these huge new Clippers will provide for comfortable travel at an altitude of 20,000 feet.

The immensity of these Douglas Clippers is emphasized by the fact that their wings will be longer, from tip to tip, than a 16-story building, and large enough for interior passageways for servicing and repairing engines in flight. They will be twice as large as the giant Clippers now flying Pan Am's transoceanic routes and seven times larger than the standard DC-3 transports in operation all over the world. It is said that they will have many accommodations and conveniences never before attempted in commercial air transportation.

The DC-7s, it was revealed, would be used by Pan Am in its Latin-American expansion program and possibly in other long-distance services. Officials state that the airline would operate these big Clippers directly to Latin America from New York, as well as from Miami, New Orleans, and Los Angeles at fares as low as three-and-a-half cents a mile. The mammoth planes would carry passengers from New York to Buenos Aires in 22 hours, to Rio de Janeiro in 19 hours, and span the Pacific from Los Angeles, and San Francisco to Honolulu in about eight hours, making it possible for the everyday citizen to spend 12 days of his two weeks' vacation abroad.

Although dates of delivery to Pan Am will depend upon progress of the war and Government decisions on production and manpower priorities, most of the engineering has

been completed and the basic airplane of this size is actually under construction at the Long Beach, Cal., plant of the Douglas Company. It will be powered by four Pratt & Whitney engines of even greater displacement than the 2,100 horsepower Double Wasp, and Hamilton Standard propellers. Details of this new engine are still a heavily guarded military secret.

The DC-7s will have two spacious cabins, one accommodating 72 passengers and the other 36, besides a modern galley equipped for serving full-course meals, dressing rooms, toilets, cargo compartment, flight deck and compartment for pilots. There will also be large storage compartments for food and electrically operated stoves and refrigerators will be included in the modern equipment. Thermal de-icing systems, built into the wings and other surfaces, will make comfortable all-weather flight possible at high altitudes.

The cargo capacity of the new Clipper fleet would increase, over 17 times, the present cargo capacity. It could handle over 30,000,000 pounds of air express annually, as compared to the 1,700,000 pounds carried in the pre-war year of 1941.

Shipping of Hatching Eggs By Plane Tested

Unusually good experimental results, attesting the feasibility of shipping hatching eggs by airplane, have been obtained by Professor Morley A. Jull, head of the Poultry Department at the University of Maryland's Agricultural Experiment Station.

The first test consisted of 180 hatching eggs which were carried by American Airlines from Washington, D. C., to Los Angeles, Calif., and return, Professor Jull explained. Of the 180 eggs shipped, 3 were infertile; 20 embryos died; and 157 chicks hatched or 88.7 per cent of fertile eggs. Of the control lot of 180 eggs held at the University while the others were in transit, 3 were infertile; 15 embryos died; and 162 chicks hatched or 91.5 per cent of fertile eggs. The maximum altitude attained by the air-shipped eggs was 12,000 feet and the range in temperature during the trip was from 48 to 70 degrees Fahrenheit.

The second test was conducted over the Eastern Air Lines route from Washington to Miami and return via New York each way. Of the 180 eggs shipped, 4 were infertile; 18 embryos died; and 158 chicks hatched or 89.8 per cent of fertile eggs. In the control lot, 3 were infertile; 17 embryos died; and 160 chicks hatched or 90.4 per cent of fertile eggs. The highest altitude attained by the air-shipped eggs on this experimental flight was 7,000 feet and the range in temperature in the cabin of the airplane varied from 34 to 80 degrees Fahrenheit.

Low-Fare Air Runs To Hawaii Planned By Matson S.S. Line

If everything works out all right for the Matson Navigation Company, which has applied to the CAB for permission to operate airlines from Pacific ports to Hawaii, a fleet of eight new DC-4's, staffed by 25 flight crews will be making the runs. Matson plans to run the air line as a supplement to its present steamship lines.

According to a reliable report, Matson intends operating the proposed air routes "as low or lower than any competitive transport agency." Terminals are planned at Los Angeles, San Francisco, Portland, and Seattle, with two round trips a day to each port.

It is the belief of Matson that a definite upswing in travel will offset the anticipated increases in wages and materials. Lower fares are the object of the company, and it plans to offer ship or plane service at the same price.

POTENTIAL RUG

FURRY TROPHY—American Airlines' personnel at LaGuardia Field had to do some fast talking the other day to assure visitors that it was perfectly safe for them to venture around the wilds of LaGuardia Airport. The cause of worry was a huge 300-pound black bear hanging from a tripod in front of American's hangars. The animal was a trophy of officials of the company who have just returned from a hunting trip near Patten, Maine.

Hal Fowler, regional personnel director, is given credit for the kill of the animal. Others in the party were R. M. Fischer, assistant to vice president-operations at Washington; Frank Ware, Assistant director of maintenance and overhaul, and N. K. Wilson, president of Sky Chefs, Inc.

THE STORY OF IDLEWILD

Aviation prophets were a dime-a-dozen a few years ago, Mr. McKenzie says, but when New York turned to the Idlewild project these seers suddenly faded away. Here is the real story by one who is exceptionally well qualified to tell it.

By JOHN MCKENZIE

New York Commissioner of Marine and Aviation

ONE of the most romantic subjects engaging public attention today is aviation. A whole new mass of industries has sprung up all over the world, but particularly in the United States, directly related either to the production of planes or the construction of airports. The immense prosperity and mass employment which followed the introduction of the automobile is, I believe, about to be duplicated by mass production of planes of all sizes and categories.

This means, of course, the parallel necessity for municipalities and states to build airports on as equally a large scale and with a commensurate degree of speed to keep pace with the plane industry.

This matter of plane and airport operation after the war will fall into two distinct categories—the first being wholly commercial operation and the second the private or sport flyer. Until recently, it was usual for commercial planes and private planes to use the same field and the combined use presented no real problem of airport operation, but with a radical growth in size of the planes, the number of new airlines and the increase in schedules, it was recognized that a revolutionary change in operation was essential to safety of operation.

New York's Regulations

This problem reached its climax at about the time that LaGuardia Field was opened. New York was probably the first city to face squarely the problem and to adopt regulations which were designed to prevent the sporting flyer from using a commercial field. This was naturally a hardship on the private flyer and a regrettable necessity for the city. It had tremendous repercussions throughout the nation and created a good deal of unfavorable criticism for us. The Federal authorities expressed the belief that we probably could not devote the field to one class of operation, because it has a monopolistic tendency, but it did not deny our right to insist on safe regulation. To meet this objection we finally promulgated a regulation which required every plane coming into LaGuardia Field to be equipped with two-way radio so that all planes could, at all times, be in touch with the tower and therefore under instant control. This has resulted in one of the safest airport operations in the world.

This virtual elimination of the private flyer from the field permitted us to devote ourselves entirely to commercial operation, but even at that, though we had planned, as we believed, for five years ahead, we found ourselves on the opening day almost at the peak of capacity of the airport. And at that very time Mayor LaGuardia directed an immediate study of airport potentials in the New York area. At first he believed that we ought to acquire another site and proceed on a small scale, making it an auxiliary airport for LaGuardia Field, and until such time as the field might be required for schedule operation, it could be made a field for private plane owners.

The Idlewild Site

Accordingly, our survey led us to the site at Idlewild, near Jamaica. Just about that time, the Federal Government inaugurated a program for construction of military fields throughout the country, but particularly along the Atlantic Coast and it proceeded to build a small flying field on our Idlewild site. But we could see that the type of ship which would undoubtedly want to use this most favorable location for overseas operation would be one that required much longer run-

ways and consequently larger areas. The Federal Government agreed with this view and the city proceeded to acquire the required additional land—4,057 acres—a plot about three-and-a-half miles long by two miles wide.

In the meantime, all of the airlines of the country began eyeing the juicy passenger pool resident in the New York area and the offices of the CAA were swamped with applications for extensions into New York. It was therefore fortuitous that New York had begun the construction of the field at Idlewild when it did because it guaranteed that no matter how many applications were granted, facilities would be had for all. As a matter of fact, some have been granted already and we are hard put to it to squeeze them into LaGuardia Field temporarily. The mayor has promised an operation at Idlewild in 1945 even if we have to put up wooden shacks. This is illustrative of the great speed with which this industry is expanding.

A few years ago we had more aviation prophets to the square foot than any other industry boasted. There were more experts on airport layouts than could possibly find employment, but when the city cast about to gather them in for suggestions on Idlewild, they were nowhere to be found.

The logical place, of course, for such advice was the airlines themselves. Their staffs had grown from a few enthusiasts of the barnstorming days to young earnest men who had begun to apply solid business methods and scientific engineering experience to the industry and were able to apply that experience to up-to-date requirements of a new airport. They were invited to make studies and suggestions. The mayor laid down one hard and fast condition, and that was that there must be at least two 10,000-foot runways in the prevailing wind direction. And while these studies were under way, the city carried on the necessary filling operations to bring the area up to operating grade.

Six Runways Planned

The new layout has commanded the attention of a joint committee consisting of airline representatives, pilots and city engineers. As a result of this committee's work, a plan has been adopted which provides for a field comprising six runways, two to be 10,000 feet long, and the others 8,200, 7,500, 6,500, and 6,000 feet long. All of these runways will be 200 feet wide.

There will be a modern administration building costing about $7,500,000 situated in the center of the field. This centering of the building is a radical departure from the conventional layouts heretofore regarded as standard. But we had to come to this because we realized we could not expect our control tower men to be able to regulate traffic at the outer ends of runways at least 10,000 feet away from the tower. Visual control is still as necessary as ever and no one yet knows how soon mechanical appliances may displace this necessity.

During our studies and conferences the airlines produced statistics indicating that at the end of a 20-year period this metropolitan area would probably reach its point of airplane saturation at 360 flights per hour. In other words, that's as many planes as the air over New York could contain and insure safety in landings and takeoffs. For the design this meant a multiplicity of runways instead of the single runway system in vogue today. The six-runway plan now adopted insures a double parallel system of runways in three wind directions so that two planes can take off or land simultaneously one mile apart.

This, it is believed, will suffice for the foreseeable near future but the plan has been so prepared as to be capable of expanding to 12 runways with a four-plane simultaneous operation. It is anticipated that before that time, radar and other radio appliances will have been perfected to the point where machinery will supplement or entirely supplant human control.

It is my personal belief that LaGuardia Field will handle the short trip traffic such as that to Boston and the northeast and probably as far south as Washington and west to Chicago, but that Idlewild will be essentially the overseas international airport with long, transcontinental flights commencing and ending there but more important it will be the country's best equipped cargo airport.

Surface Access Designed

What about access? Well, so far as surface access is concerned, there are four arterial highways leading into the northerly perimeter of the field, but the main highway will be the extension of a boulevard into the field with clover leafs and overpasses to insure speed and lack of congestion. In this connection I am often asked to give an expression of the part the helicopter will play.

To attempt an answer to that question now is to step into the field of prophecy. I know that answer is surprising to many people after all the publicity showing a helicopter in every backyard and indeed in every garage to the exclusion of the flivver. One of the best authorities in the world, Igor Sikorsky, entertains no such rosy views for his invention. He told me recently it would be an optimistic statement to say that a commercial use could be made of the helicopter within five years.

The matter of cargo handling raises a most interesting phase of our airport planning. It is a subject, too, which is engaging the serious attention of plane builders and airline operators. As you men know its surface has

The Author

JOHN McKENZIE has served as New York City's Commissioner of Marine and Aviation since 1931. His department has sole charge and control of public and private airports in New York. With Mayor Fiorello H. LaGuardia, he built the city-owned and operated seaplane bases at Wall Street and East 23rd Street, on the East River; LaGuardia Airport; and now Idlewild Airport.

He established the first seaplane base in New York for Frank Coffyn's pontoon-equipped Wright plane. This was 32 years ago. Later, in 1921, he built a Hudson River base for Aeromarine.

only been scratched largely because of the present high ton-mile cost. But with mass production and planes efficiently designed for cargo I think we would be selling the game short if we didn't make up our minds now that it will soon be a profitable venture for both producer and distributor especially where time is an important factor.

A few weeks ago I had a distributor in to see me urging that the city make immediate provision at Idlewild for warehousing perishable products. He said he was laying his plans along the line of getting farm products from the farm to the consumer's table in less than 24 hours. He said that even at present costs there is a huge market in the cities for selected prime fruits and vegetables picked, cleaned and packed at the point of origin.

This opens a wide vista of possibilities. Suppose a properly financed group determined to erect factories right on the farms in Ohio for corn; Florida for celery and lettuce; California for oranges; West Indies for tree-ripened bananas. Think of how much food now wasted because of long rail or motor truck hauling would be saved. Personally, I feel assured that within a short time a modern heated and refrigerated market will have to be located at all major airports.

So it is that I say we are justified in believing that at the end of the war, with industry turning again to the replenishment of our sadly depleted stocks of automobiles, the development and construction of new passenger, cargo and sport planes and the development of new aerial feeder lines into remote towns and villages to say nothing of the tremendous housing and urgently needed program of deferred public works, this country has before it one of the most prosperous and happy eras it has experienced since the days of its founding.

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Oklahoma Flying Farmers Join NAA, Striking New Note in Farming Methods

Advantages of Planes To Farmers Are Shown By Their Own Stories

OKLAHOMA farmers have taken their place formally among the organized users of the skyways in the operation of their business. As the Oklahoma Flying Farmers, they have organized a chapter of the National Aeronautic Association, first all-farmer group in the United States to hold such a charter.

With 38 charter members, they represent a group with headquarters at the Oklahoma Agricultural and Mechanical College, Stillwater, Okla., but with a membership that speads over the vast expanse of the State. Active membership in the Oklahoma Flying Farmers chapter is limited to farmers and their wives who use airplanes in the actual conduct of their farming operations. Associate memberships may be voted by the active group.

The Oklahoma Flying Farmers received their NAA charter at the closing session of the First Oklahoma Livestock Conservation and Production Clinic in Oklahoma City late last month.

It was presented to Henry Bomhoff, Calumet, president of Oklahoma Flying Farmers, by W. M. Morgan, NAA national counselor for Oklahoma. Ladd Haystead, president of the New York City Farm Club and associate editor of *Fortune*, was the principal speaker.

In addition to Mr. Bomhoff, other officers of the chapter are Forrest Watson, Thomas, Okla., vice president; Mrs. Todd Davis, Minco, Okla., secretary; and Thomas McCurdy, Cooperton, Okla., treasurer.

Directors are H. C. Hitch, Jr., Caymon; Clyde Keller, Thomas; John T. Krittenbrink, Jefferson; C. S. Moore, Roosevelt; J. Edgar Portwood, Hobart; Ben Talley, Roosevelt; and Arvid Temple, Buffalo.

TWENTIETH CENTURY FARMERS— *Officers of the Oklahoma Flying Farmers line up behind their new NAA charter. Left to right are Henry Bomhoff, president; Thomas McCurdy, vice president; Forrest Watson, treasurer; and Mrs. Todd Davis, secretary.*

Plane Use Successful

For several years a number of Oklahoma Farmers have been using planes as a piece of routine farm equipment. Their use has been varied and successful, and the idea is spreading. Wives of some fliers are already pilots and others are taking instruction. Several of the Oklahoma Flying Farmers have an instructor's rating and have been teaching their neighbors to fly in preparation for purchase by the neighbors of their own planes.

Wheat fields, pasture land or other open spaces provide flying fields. Most of the farmers have adapted a portion of some farm building—a large shed, barn or other structure—to hangar purposes. Some have constructed new hangars.

Uses to which their planes are put by the Flying Farmers are varied, depending on the nature of their farming operations. Planes are used in locating cattle, checking fences to locate breaks, flying to town for supplies, emergency trips for repairs to machinery, delivery of light produce to market centers—particularly perishable—foods and out-of-season produce which command fancy prices.

In addition to its great utility value to the farmer, which is even greater than that to the urbanite, the plane provides the farmer and his family a means of transportation for pleasure purposes which has made the isolation of the farm a thing of the past.

Airplanes as an adjunct of the farm have had two outstanding demonstrations in Oklahoma in recent months.

One was a meeting at the Oklahoma Agricultural and Mechanical College to which some 20 farmers and their wives flew in their own planes from widely separated parts of the state. While the meeting was in session their planes were parked on a flying field—a striking modern note in farming. After the meeting the owners flew home, some of them a considerable distance. Their absence had been so brief that operations on their farms had not been interrupted.

Aerial Coyote Hunt

The other spectacular demonstration of a new farm use for the airplane was an aerial three-day coyote hunt staged in Western Oklahoma. Because of a scarcity of ammunition, coyotes had become unusually numerous and destructive since the start of the war.

With the Civil Air Patrol co-operating and doing most of the flying, farmers in four areas took to the air to wipe out the pests. A total of 257 coyotes were either shot from planes or located for ground crews which took care of the executions. One Oklahoma farmer, an old-time pilot, has shot more than 100 coyotes this season and has a total bag of more than 500.

The logs of many of the Oklahoma Flying Farmers are replete with incidents in which the airplane has played a vital emergency role. Last winter the area around Thomas was snowbound. Vice President Watson of Oklahoma Flying Farmers flew in mail and food supplies for his community. And it was Watson also who took Carl Neumann, Custer County Farm Agent, on an aerial inspection of 165,000 acres of wheat land in an hour-and-a-half to determine how many combines were at work in the area.

IN THE GROOVE—A "first" is being claimed for Hawaii in the announced policy of R. A. Howe & Company, Honolulu distributors and representatives, for the exclusive use of air freight in supplying dealers on the outside islands. According to Vurton R. Ogilvie, sales manager of the company, the cost absorbed "is a very small item in comparison to the service rendered." During the next six months it is expected that monthly shipments will average 30,000 pounds. Phonograph records are high on the rush list. Above (left to right) are Louise Oliviera, Hawaiian Airlines traffic clerk; Al Sack, owner of Howe's; and Ogilvie.

Philadelphia Warned On City's Air Future In Address by Budd

"The day of air transportation on a mightier scale than most of us have ever imagined is on the way. It is coming, as surely and as irresistibly as the tides. And it's coming sooner than we think!"

This was the warning John F. Budd, editor and publisher of AIR TRANSPORTATION and chairman of the Aviation Section of the New York Board of Trade, left with some 700 Philadelphians in his speech before the Philadelphia Rotary Club at the Hotel Bellevue-Stratford on Nov. 1.

Stating that the city was third in industrial importance to the United States, having a population of 4,000,000, Budd told his audience pointblank that its airline station ranked tenth in the country and that the passenger miles accounted for brought the city down to fifteenth place.

"A discrepancy of rank as to passenger and passenger-miles indicates the short-haul character of Philadelphia's air transportation," he said; and then went on to add that "for Philadelphia to realize its destiny in air transportation—a destiny comparable to its position in industry—you've got to get moving fast."

Mr. Budd declared that four years ago it was possible for a city to have contact with 192 other air stations, but that the Quaker City actually had contact with only 55. He pointed out that Chicago had contact with 150.

"Anything that can be done in the direction of increasing Philadelphia's contact with all other points on our domestic air route system," the air transportation expert asserted, "will be extremely important in the fulfillment of Philadelphia's place in the Air Age. This may take the form of offering help in economic and traffic studies to carriers who are seeking new service to Philadelphia, or it may be by actual intervention of such bodies before the regulatory boards controlling the establishment of air routes. It is important that any studies of this kind be pointed directly toward the question of what routes are needed, and this presupposes adequate traffic investigation to find out what particular pattern of trade and travel between Philadelphia and other domestic airline stations is required.

The publisher painted a broad picture for the Rotarians, citing facts and figures on air commerce of today and their relationship to the air commerce of tomorrow. One of his object lessons was Idlewild—the airport which, when completed, will cover an area of 4,057 acres and will be seven times the size of LaGuardia Field.

BUDD BLOSSOMS IN THE CITY OF BROTHERLY LOVE—John F. Budd, editor and publisher of AIR TRANSPORTATION, and chairman of the Aviation Section of the New York Board of Trade, issues a stern warning to Philadelphians on the subject of postwar air transportation. Some 700 Philadelphia Rotarians heard the speech which described their city as having contact with only 55 out of a possible 192 air stations.

Philadelphia's Reaction to Budd's Speech

PHILADELPHIA EVENING BULLETIN: "On matters relating to aviation, this city has been suffering from an inferiority complex . . ."

PHILADELPHIA INQUIRER: "Philadelphia was warned . . . to awake to the tremendous benefits of postwar air transportation, and go after them quickly to assure its proper place as a center of industry and trade."

PHILADELPHIA RECORD: "Philadelphia must move fast if it is to realize its destiny in air transportation . . ."

PHILADELPHIA DAILY NEWS: "The New York aviation expert . . . pointed out that in his opinion this city needs an airport comparable to New York and also express highways that will bring the airport as close as possible to the center of the town."

A. M. STRONG

K. N. MERRITT

MAJ. BENJAMIN NAMM

Seven Speakers to Address Aviation Section's Luncheon Parley in New York on Nov. 28

A PANEL of seven speakers will feature the second luncheon-conference on the coordination of air commerce sponsored by the Aviation Section of the New York Board of Trade on the Belvedere Roof of the Hotel Astor, New York. The affair will take place on November 28.

The speakers will be Major Benjamin H. Namm, K. N. Merritt, George W. Gerlach, A. M. Strong, John V. Lawrence, Chester Mack Mayer, and L. F. Bouman.

Major Namm is president of the Namm Department Store in Brooklyn, N. Y., director of the Aviation Corporation, former executive director of the United States Purchasing Commission in Brazil, and first vice president of the National Retail Dry Goods Association. Mr. Merritt is general manager of public relations for the Railway Express Agency, and Mr. Gerlach is president of the Manhattan Storage and Warehouse Company, New York.

Mr. Strong is chairman of the Committee on Uniformity in Documents and Practices, Bankers Association for Foreign Trade. He also is a vice president of the Public National Bank and Trust Company of New York. Mr. Lawrence is managing director of the American Trucking Association, Inc. President of the Air Express International Agency, Inc., Mr. Mayer is in addition chairman of the Air Shipping Services Committee of the Aviation Section of the New York Board of Trade. Mr. Bouman holds the positions of United States representative of KLM and secretary to the Board of Directors of KNILM.

They will discuss a wide variety of subjects relating to the single topic of air commerce coordination. Major Namm is programmed to speak on the effect of air transportation on merchandising; Mr. Merritt on railways services' help to air cargo transport; Mr. Gerlach on the warehouse as a unit in the distribution of goods by plane; Mr. Strong on the bank as an aid to air commerce; Mr. Lawrence on linking motor and air carrier service; Mr. Mayer on the part of the foreign freight forwarder and the customs broker in international air transport; and Mr. Boufman on the coordination of services of the air carrier and those of other groups for the best development of air commerce.

The committee on arrangements is headed by George F. Bauer, international trade consultant and chairman of the Air Commerce Committee. It includes John F. Budd, editor and publisher of AIR TRANSPORTATION, chairman of the Aviation Section, and representing the International Economic Council; C. A. Brown of C. H. Powell & Company, and representing the Steamship Freight Brokers Association; Herman S. Dorf of H. S. Dorf & Company, and representing the New York Customs Brokers Association; Herbert J. Lyall, chairman of the Airlines Committee, and representing 18 domestic and foreign airline members; Gilbert F. McKeon of the Manhattan Storage and Warehouse Company, representing the Warehousemen's Association of the Port of New York and the New York Furniture Warehousemen's Association; Dudley S. Pollard of Panagra; Karl G. Schroff of the International Forwarding Company, representing the Freight Forwarders Institute; J. E. Sitterley of J. E. Sitterley & Sons, Inc., representing the Inter-American Commercial Arbitration Commission, Pan American Society; Walter Van Hoesen of R. F. Downing & Company, representing the New York Freight Forwarders and Brokers Association; J. T. Wilson of International Business Machines Corporation, representing the American-Brazilian Association, Inc., and the Inter-American Safety Council; Daniel H. Ecker, secretary-treasurer of the Aviation Section.

GEORGE W. GERLACH

JOHN V. LAWRENCE

CHESTER MACK MAYER

L. F. BOUMAN

FERGUSON URGES SHORTER ROUTE TO FAR EAST

FRANK C. FERGUSON, chairman of the Port of New York Authority, has pointed out that Trans-Canada Airlines out of New York, when combined with a British trans-pacific air service, could provide a route between New York and Manila shorter by about 1,600 miles than a United States flag route through Honolulu. He is urging the Civil Aeronautics Board to consider the most direct route possible to the Far East as a measure of competition with foreign lines.

"The shortest route that could be established from the New Jersey-New York district to Manila for American flag line operations would be via Minneapolis-St. Paul and Edmonton," Mr. Ferguson declared.

"This direct route would be only 250 miles longer than the British flag route and would reduce competition to a measure which would not seriously affect the opportunities of the United States lines.

"In considering competitive factors in foreign trade, we are no longer dealing exclusively with surface transport involving journeys of weeks. We must be realistic about the fact that today with the use of greatly improved air transportation equipment, no spot on earth is more than 60 hours flying time from any other. Service to Manila by air is now possible in 40 hours. Accordingly, if the United States flag lines are to compete with foreign flag lines in carrying passengers and cargo by air between the Port of New York and the Far East, air routes must be established which will be competitive with foreign service.

"The most efficient air service between New York and the Far East is essential to the development of our foreign trade," Chairman Ferguson added. "In 1939 the Port of New York accounted for more than six hundred million dollars' worth, or more than half of the trade with the Far Eastern countries which the suggested new air service would reach. In 1938 a fourth of the passports for travel to the Far East were issued to residents of the Middle and North Atlantic regions."

Houston and Galveston Mentioned by Braniff For Latin America Links

Braniff Airways Corporation has proposed the opening of Houston and Galveston, Tex., as new gateways for air traffic to Latin America from the west.

The airline, which now serves middlewest and western States from terminals in Chicago, Kansas City, Denver and Dallas, is applying for a network of routes to Caribbean islands, Mexico, the Canal Zone and South America.

The Houston-Galveston aerial door, Braniff exhibits claimed, would provide the most economical entrance to Latin America for both passengers and cargo from most points west of Chicago and Memphis. Midwest and West Coast States, the company said, constituted "an important segment of the United States which has, heretofore, had only circuitous connecting service" with countries to the south.

Braniff predicted that air travel between this country and Latin America would increase six times over traffic in the pre-war period, because of improved service and switch of Latin-American trade from European countries to the United States.

Air routes to Venezuela from Houston and Galveston, it was said, would link the North American oil area with the most important oil production territory of South America.

"The post-war era will bring a great civilian demand for oil and its products, and this demand will have to be met in part by South American oil," an exhibit stated. "It is only logical to assume that travel between the two oil-producing areas will show a marked increase."

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Bigger Planes Fly Cheaper Than Smaller Craft, Newey of United Air Lines Says

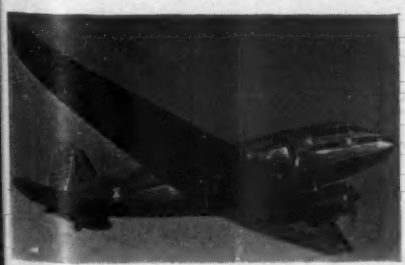
THE Douglas DC-4 and DC-6, the giant four-engine transport planes, are already on order by the major airlines. Underlining the value of their postwar use is the assertion by John W. Newey, vice president of United Air Lines, that the big models can be operated at about one-half the direct ton-mile cost of the present Douglas DC-3 planes.

This estimate of the cost potential of the DC-4 and DC-6 was received with wide interest. Mr. Newey declared that assuming a 100 per cent load factor, direct cost of operating a DC-4 is about 10.8 cents a ton-mile and that of a DC-6 about 12.4 cents, compared with 22 cents for the current twin-engine DC-3.

Direct cost accounts for approximately 60 per cent of the total expenses, Mr. Newey pointed out, stating that the estimates assumed a non-stop flight distance of 1,750 miles for the four-engine planes compared with only about 325 miles now averaged by the DC-3 (*lower left*).

The DC-6 (*shown above*) is a five-mile-a-minute, 56-passenger and cargo air liner. It is claimed that this plane will be able to reduce coast-to-coast scheduled time for passengers, mail, and express to approximately eight-and-one-half hours.

The DC-4 (*lower right*) is a four-mile-a-minute, 44-passenger and cargo plane. On the lower left is shown the DC-3, the bigger plane's smaller sister, but plenty big enough to have done a grand job for the Army.



RICK LENDS A HAND — ***Capt. Eddie Rickenbacker, president and general manager of Eastern Air Lines, participates in ceremonies at the Boston Airport as James P. Downey, Railway Express Agency official, supervises loading of air express first-flight shipments over EAST's new New York-Boston route extension.***

Chicago Leaders Ask Statewide Airports For Immediate Future

Enactment of a new law to enable Illinois to develop and aid in the financing of a statewide system of airports integrated with the national system was urged by the Chicago Association of Commerce in a resolution passed by its board of directors. Under present law the provision of airport facilities is left entirely to local governments and the state cannot provide financial aid nor exercise authority to encourage development of a unified airport network.

In calling for the necessary new legislation Paul H. Davis, chairman of the special committee on airports and a member of the organization's board of directors, said:

"There is the same need today for an adequate airport system in the state as there was 25 years ago for good roads, and we firmly believe that airports should be designated and constructed under a definite plan that will provide adequate facilities in the most economical way."

It was pointed out that if Congress passes legislation for a Federal aid program for airport improvements, Illinois will need to adopt a corresponding act to provide for acceptance and use of federal funds. In any such state law, the association declared, adequate safeguards should be incorporated to protect the rights and sovereignty of Illinois.

In addition to Paul H. Davis, the special committee of the association whose study provided the basis for the board of directors' resolution was comprised of James A. Cunningham, vice chairman and vice president of Peoples Gas Light & Coke Co.; W. A. Patterson, president United Air Lines; Wade Fetzer, Jr., W. A. Alexander & Co.; Russell B. James, vice president of Chicago, Burlington & Quincy Railroad; P. W. Willcox, vice president of United Air Lines; Frank S. Whiting, American Furniture Mart Building Company, Inc.; and Fletcher Lewis, ex officio, of McDermott, Will & Emery.

Moore-McCormack Lines Offer Plan to CAB For U.S.-Scandinavia Run

PROPOSING to use four-motor Douglas transports of latest design in cooperation with speedy combination passenger and cargo ships, Albert V. Moore, president of the Moore-McCormack Lines, has laid before the Civil Aeronautics Board his company's perfected plans for service between this country and Scandanavian ports.

The new and thoroughly modern vessels will be able to make the voyage to Norway in seven days, to Sweden in eight days and to Denmark in nine. This will offer passengers a combination of ship and air travel so as to permit American citizens and Scandinavians to spend their two weeks' holiday with approximately a week in the countries of their choice.

"We plan to use this type of ship in the Scandinavian-Baltic service at the earliest opportunity," Mr. Moore said. "Regular and frequent schedules for such ships combined with the proposed air schedules will be the

basis for attractive combination ship-air cruises."

In a supplemental statement made by Mr. Moore he said: "A fundamental basis of our application is the importance to the national interest of maintaining adequate passenger ships which can be immediately available for war not only in our service to Scandanavia and the Baltic but also in the whole European area. We find ourselves the only shipping company applicant in this proceeding (North Atlantic routes) which makes it all the more vital that we urge and establish this principle."

Moore-McCormack proposes two routes—Route 1, to reach the following cities from New York via Newfoundland and Greenland: Reyjkavik, Oslo, Helsinki, Leningrad, Moscow, Terehan and Basra, taking 16 hours' flying time to Stockholm and twenty-two-and-one-half hours' flying time to Moscow. Route 2, from New York via Foynes or Hamilton and Horta: to Paris, Amsterdam, Hamburg, Copenhagen, Stockholm, Helsinki, Moscow, Terehan and Basra. This latter route via Foyner and Paris would take 26 hours' flying time to Moscow.

In support of his application for Route 2, the southern route, Mr. Moore stated that he believed that the "additional route is necessary to develop a sufficient overall traffic factor," which, in his opinion, "is not possible on the northern route alone, but can be approached by providing service to and through such points as Paris, Amsterdam, Hamburg and Copenhagen." He said that these large cities "offer passengers from this country and from the north European countries attractive stopover possibilities which they have wanted in the past but have not been able to obtain through a single carrier operation, surface or otherwise."

TACA de Mexico Flights Already in Operation

TACA de Mexico, newly organized subsidiary of TACA Airways, S. A., is already operating on a tri-weekly service. The inaugural flight originated in San Jose, Costa Rica, and made short stops in Managua, Nicaragua; Tegucigalpa, Honduras, with an overnight stop in San Salvador, El Salvador, enroute to Mexico City. The regular flights now originate in Panama City.

Through an interline agreement between TACA and American Airlines, passengers may make their reservations from any point on TACA's system to any place on American Airline routes, or vice versa. Time schedules have been so arranged by TACA and American Airlines that their respective flights will make connections in Mexico City.

Croil Hunter Tells NWA Shareholders of Plan For 30,000-Mile Network

A 30,000-mile network of domestic and international air routes, extending from coast to coast across the northern strip of states, west to Honolulu, north to Alaska and the Orient is now being planned by Northwest Airlines for its postwar expansion period, Croil Hunter, president, revealed in his annual report to NWA shareholders.

Declaring the airplane "has become a symbol of power in the minds of all the world," Mr. Hunter asserted the aviation industry as a whole is entering a phase of its development "which has no parallel in the past."

"No single element will bear more directly on the building of a prosperous and lasting peace for all nations," he declared. "The war has demonstrated the myriad advantages of air transportation. The immense increases in travel and transport in the immediate postwar era, with the new emphasis on speed, will demand a vast expansion of commercial air routes as quickly as such service can be made available."

Mr. Hunter pointed out that experience gained in the operation of extensive war activities for the government, including the B-24 bomber modification center at St. Paul and the Northern region military cargo routes to Alaska and out on the Aleutian Islands chain, will be "a powerful factor in the all-important decade ahead."

Await CAB Decision

"Since the beginning of our war work," he asserted, "we have been able to build up a pool of skilled workers in all branches of the company, keeping in mind the need for such workers which is certain to develop as our commercial activities expand."

He disclosed that Northwest Airlines now is awaiting decision of the Civil Aeronautics Board on its application for authority to fly into New York, completing its transcontinental line from Seattle and Portland. Completion of this line was described as the first essential step in the company's expansion plans. Northwest expects a favorable decision, he said.

The report revealed the machinery has already been set in motion for extension of NWA service to Honolulu, Alaska, Japan, China, the Philippine Islands and India, with applications now on file with the CAB.

"We look to Alaska," Mr. Hunter said, "as a great new empire in the postwar air world and, beyond, to the Orient and Far East as areas of vast potential trade, brought close to the industrial Americas by the speed of the airplane.

Postwar Potentials Stressed in Trade Survey by Panagra

A SIGNIFICANT trade survey of South America—in practical digest form—is now being released by Pan American-Grace Airways, Inc. This survey has been distributed only through accredited travel agents, for whom it was especially prepared as a means to stimulate inter-American trade by air now to pave the way for expanding business relations with South America after the war.

The survey is aimed primarily at Chambers of Commerce, Manufacturers' Associations, Boards of Trade, and other organizations representing American business which are alert to the post-war possibilities of inter-American trade and who have the personnel and means to probe these post-war potentials at this time.

The first page of the survey, for example, lists the principal South American markets for United States exports: cotton textile, iron and steel pipes and fittings, motor vehicles and chassis, yarn and thread, iron and steel construction, weaving machinery and accessories, pharmaceutical preparations, wool textiles, rubber tires, tractors, raw cotton, agricultural machinery, electrical apparatus, metal products, petroleum and products, sugar, machinery and tools, chemical products, cereals, and foodstuffs.

Wide Sources Listed

Besides the related materials from the files of Panagra and S. J. Roll, foreign trade counselor for Pan Am, the bibliography credits *The South American Handbook*, *Foreign Commerce Weekly*, bulletins from the Office of the Coordinator of Inter-American Affairs, *Encyclopedia Brittanica World Atlas*, *Government Finance*, *U. S. Securities*, *Pan American Union Magazine*, *Peruvian American Digest*, *Argentine American Chamber of Commerce Digest*, *Air Cargo Potentials*, and *New World Guides to the Latin American Republics*.

Countries covered by Panagra's survey include Panama, Colombia, Ecuador, Peru, Bolivia, Brazil, Chile, Argentina and Uruguay. Opportunities for post-war commerce recently compiled by the United States Department of Commerce; basic trade information, trade balances, a list of major import commodities, area and population figures as well as present and proposed air services are given for each country.

Cited are many examples where economic survey trips of South America have already been made—often without a priority—in the interest of establishing export markets for manufacturers and to select and establish South American representatives for trade relationship purposes.

In releasing the survey through travel agents, Panagra points to the fact that the travel agent has at his finger tips the complete facilities and information source material of Panagra and its two international parent companies, W. R. Grace & Company and Pan American World Airways, as well as the facilities for making the complete travel arrangements for all interested in such a survey trip of South America.

AA FILES POSTWAR AIR RATES

In the good young days of the post-war period you will be able to fly from New York to London for $235, with 10 per cent discount for the round trip and $25 additional for sleeping accommodations each way, according to a rate schedule which American Airlines filed with the CAB.

A New York to Paris ticket will be $250, and New York to Foynes, Eire, $230. The present air fare from New York to Lisbon or Foynes is $525, to which must be added transportation costs to London or other points. Pre-war steamship fares at minimum first class were $282 to British ports and $287 to France.

American Airlines plans to use DC-6 planes and have an elapsed time, including stops, of 11 hours and 56 minutes from New York to London, and 13 hours and 26 minutes from New York to Paris.

"Chosen Instrument" Rapped by A. B. Royce In Press Interview

IN behalf of 17 airlines which comprise the Airlines Commmittee for United States Air Policy, Chairman Alexander B. Royce presented to the press a 27-page brochure on the issue of national policy in international air transport. Basically the question revolved on whether there should be "a chosen instrument" or "regulated competition."

The brochure, which supplemented Royce's talk, claimed nine points:

1. That the United States already has an established policy for both domestic and international air policy;
2. That "regulated competition is in the public interest" in peacetime and "in the national interest in promoting adequate defense measures";
3. That the McCarran Bill's passage would result in a single "'chosen instrument' to represent America in the field of international air transport";
4. That "cartels arise whenever any interest other than governments themselves negotiate with foreign countries";
5. That the "chosen instrument" is a monopoly and "it is the first step toward cartelism";
6. That this policy would not "stimulate the development of technical improvements in the public and national interes";
7. That it "would, in effect, exclude new American pioneers from the field of international air transport";
8. That, under regulated competition, the performance of American companies "is unexcelled throughout the world";
9. And that "the 'anti-cartel' domestic airlines don't all want to fly the same routes," and that they request only "regulated competition."

Mr. Royce, former Special Assistant Attorney General, has represented both private and Government interests in the field of domestic and international air transport. Member airlines of the committee are: All-American Aviation, American Airlines, American Export Airlines, Braniff Airways, Chicago & Southern Air Lines, Colonial Airlines, Continental Airlines, Delta Air Lines, Eastern Air Lines, Inland Air Lines, Mid-Continent Airlines, National Airlines, Northeast Airlines, Northwest Airlines, Pennsylvania-Central Airlines, Transcontinental & Western Air, and Western Air Lines.

NON-WAR AIR SHIPMENTS OVER FOREIGN ROUTES GETS ROOSEVELT'S OKAY

EXECUTIVE ORDER 9492, signed by President Roosevelt and dated Oct. 24, 1944, states that "the Secretary of War and the Secretary of the Navy are authorized and directed to permit transportation of non-military and non-naval passengers and cargo on Army air transports and Navy air transports operating over foreign routes."

The provisions are "that the transportation is certified by the War Department or the Navy Department as being in the national interest because it will contribute directly or indirectly to the war effort, or by the State Department or the War or Navy Department acting for the State Department, as being in the national interest because it will similarly contribute (i) to relief or rehabilitation activities in areas affected by the war, or (ii) to the resumption of economic or other activities, disrupted by the war, that are necessary for the prompt reestablishment of peacetime conditions."

War orders, of course, get priorities.

Air France to Resume

Air France, the French commercial airline, is expected soon to resume service on routes between Paris and each of the following points: London, Algiers, Tunis, Marseilles, Bordeaux, Lyon, and Toulouse.

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AIRFREIGHTING PERISHABLES

(*Continued from Page 31*)

goes down, the density of cargo will increase, still further diminishing any problem in providing adequate space for normal loads of air freight.

Many air cargo operators are thinking in terms of a postwar plane which will conveniently handle 10-ton pay loads. There will be an economic limit rather than any engineering limit to the size of future planes. The convenience of industry in determining size of trade units, as it has done in the case of rail car lots, will, in my opinion, be the factor most responsible for fixing the maximum size of future air freighters.

If I were to look at this problem of transporting perishables by air only through the cold eye of a traffic manager, I am very much afraid that the meat industry would find almost no use whatever for airfreight. Even assuming a post-war rate of 10 cents per ton-mile, which incidentally is lower than appears feasible in the near future, the packers would be paying over five times as much as is now being paid for car-lot refrigerated freight. And to make matters more difficult for the air transport outlook, I understand the meat business is *highly* competitive, with relatively *low* mark ups, and sometimes profit depends entirely on economy and efficiency of distribution. So again, how can we sell you a vastly more expensive transportation service?

I have carefully considered savings that can be gained through use of air, and have found them insufficient to equalize the difference between air and surface costs. I have considered the possibility of saving perhaps three cents or more per pound through slaughtering kosher beef in Chicago, and flying it to the big New York market. There is also the matter of savings on shrinkage, and probable elimination of refrigeration, to put on the credit side of the ledger for air. In addition to these, there are other less tangible factors such as reduction in inventory costs, more flexible servicing of small markets, and possible improvement in quality of spring lamb and fresh pork through careful handling and fast air service. All told, I can't

***DEFUZZED PEACHES**—Yes, that's just what they are. Stewardess Mary Schick of United Air Lines is shown here wading through a whole mess of the fuzzless fruit. National attention was recently attracted when UAL flew a shipment from California to New York as part of a study in shipments of perishables by air made by the airline, Wayne University, and A & P.*

see where, counting up all the savings, an air rate of over eight cents per ton-mile would be attractive; and even that would be of interest to only a small fraction of the meat business.

Air Express Records

Now what can we hope to offer at early postwar rates of two or three times that level? Nothing? Well I wouldn't say that.

Years ago bush operators flew meat in Alaska for a rate of a dollar a pound. Just prior to the war some airlines were hauling regular shipments of extra fancy trimmed steaks by air express to certain famous West Coast steak houses. The rate amounted to about 75 cents a pound. During the war, one of our cargo men happened to be aboard one of United's transports which had been converted to war duty with the Air Transport Command, and he tells me of flying the first plane load of beef from Fort St. John, Canada, to Fort Nelson in the Yukon Territory. This inaugurated regular air service for plane loads of from 7,000 to 7,400 pounds of beef, all in quarters.

Last September, United flew a substantial shipment of the finest Chicago beef to its own commissaries on the West Coast. It contemplates regular shipments. Suppose it does cost us more money? Think of the advertising and good will benefit. Who can say that many an enterprising hotel or restaurant may not do the same thing as soon as they are assured regular service? They did it at 80 cents a ton-mile. I feel certain in my own mind that in these days of innovation, of new sensation, and multiplied effort to court the buyer's favor which lie ahead, we will see a lot of this thing being done, especially at drastically reduced air rates.

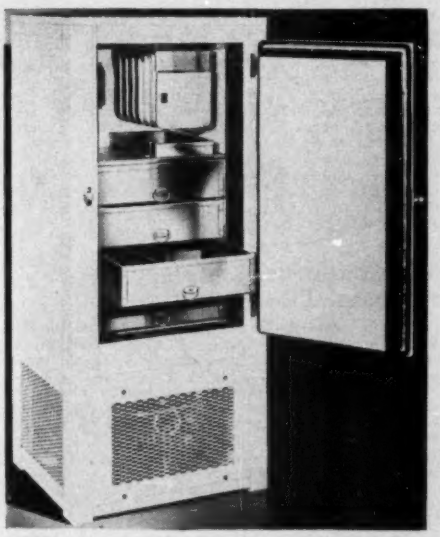
It seems to me now that granted there is a place in the meat industry sun for air transportation, we should give serious consideration to how it may best be adapted to its needs.

As a part of the first full plane load of perishable food to be flown by any of our domestic airlines, United took on a small shipment of fancy, trimmed and packaged steaks at Omaha for display with the rest of the perishable cargo at the Waldorf-Astoria in New York on August 24. Those steaks made a real hit, and I don't think it was all on account of rationing either. The idea of trimming the meat and dressing it up in a fancy package, representative of its fancy quality, has a definite appeal to a great many people. I might say that two shipments of fancy chicken also attracted a lot of attention. One shipment, also taken on at Omaha, was a box of fancy cut up, and fully oven-prepared young frying chickens.

Enterprise and Profit

Without doubt some enterprising firms will find a greatly widened market for high quality specialty items, such as calves liver, brains, sweet breads, and fancy sausage. Many small towns and cities have difficulty in getting good fresh supplies of such items. A railroad friend of mine asked me sometime ago if we could handle 5,000 pounds of sausage, once a week, to a market which could not be readily supplied by either truck or rail, with less than car-lots of such perishable merchandise. And then there are new markets in Canada, Alaska, Mexico and even Europe. Air cargo will be most helpful to meat packers in developing these markets where existing surface transportation is either inadequate or almost non-existent.

Our stake in the future lies with the enterprising operator, willing to try something new; who can see opportunities for putting a product on the market that will demand a premium sufficient to cover the increased cost of transportation, return him a nice profit, and give him that certain satisfaction that comes from being out in front.



REFRIGERATION IN THE AIR— ***Priceless life-saving serums, vaccines, perishable medicines, and certain foods are protected in this new compact, custom-built refrigerator for airplanes developed by the Airtemp Division of Chrysler Corporation. This hardy four-and-one-quarter cubic foot unit requires less than three-and-a-half square feet of floor area, and weighs 106 pounds.***

[TRADE MARK]

Contract Settlements Streamlined by Army

Speedy contract settlement and reconversion to civilian production is being stressed by the Air Technical Service Command, according to its deputy director, Maj. Gen. Bennett E. Meyers.

"Today we are training over 3,000 carefully selected officers to hand'e the complicated details of contract termination quickly and fairly," Gen. Meyers declared. "They are being trained in such institutions as the Harvard School of Business Administration and the Army Industrial College at Washington, D. C.

"The Air Technical Service Command now has first priority on officers for this job, wherever they may be located out of the combat zones. Our choice falls on men who in civilian life were successful bankers and corporation executives, recognized lawyers, property managers and production experts. Once trained, they work in teams composed of a contracting officer, a negotiator, property disposal officer, legal officer, and an accounting officer.

"We are not only training qualified men to handle the Army's part of the termination job; we are also offering to manufacturers all the information at our disposal that will help them in winding up the contracts on their own end. The faster the manufacturer can function in listing his inventories and in submitting his statements and his subcontractors' bills, the more efficiently we can operate. In each of our six procurement districts, therefore, we invite manufacturers to attend meetings, or to send representatives there, where we show them the steps they should take in preparation for termination, and what requirements must be met. Sessions vary from one-day meetings to courses that last over several days."

Mid-Continent Reports Substantial Increases

Mid-Continent Airlines' operating revenue for the first nine months of this year was $1,479,584.58, approximately twice that of the $754,312.07 figure for the same period in 1943, it was revealed by J. W. Miller, president of the company.

In a report comparing the nine-month period ended September 30, 1944, with the same period of 1943, Miller also stated that the company's net profit before income taxes was $318,067.03 for this year and $192,275.24 for last year.

After provision for Federal and State income taxes, the net profit was $174,642.24 this year and $148,504.94 in 1943.

The report showed an increase of 129.92 percent in passenger miles flown. Total number of passengers carried was raised from 24,574 in 1943 to 54,566 this year. The passenger load factor increased from 62.47 percent to 84.86 percent. Revenue miles flown were up 65.23 percent. Mail and express pound-miles showed an increase of 101.27 percent.

Earnings per share for the nine months ended September 30, 1944, were 44 cents, as compared with 38 cents in the same period of 1943.

Miller pointed out that the increase was "due in part to the addition of two Lockheed Lodestar planes in July, 1943, and the balance to a substantial growth in war-effort travel."

New Air Mail and Cargo Department for Braniff

As the result of "several years of study by Braniff Airways in anticipation of postwar expansion," a new air mail and air cargo division of the airline's traffic department was announced by T. E. Braniff, president. Guy M. Springer, Jr. has been appointed air mail and air cargo traffic manager.

"Our plans to handle air cargo, including all types of air freight and air express, have now reached the point where we feel it is necessary to create this new department," Mr. Braniff said. "Under Mr. Springer a well-rounded program of cargo service to handle all classes and types of commodities that lend themselves to effective and economical air transportation will be developed.

"Appropriate tariffs, rates and facilities will be offered to the public. All types of cargo services such as airport to airport, store door pick-up and delivery and shipments of plane load and less than plane load lots, will be provided. We are preparing to expand our air mail facilities, including the handling of first class mail and air parcel post, if the Congress of the United States by suitable legislation provides for such service."

Frye Tells Of TWA Increases

Transcontinental & Western Air, Inc., had net earnings of $1,420,553 for the third quarter of 1944, or $1.46 per share, after provision for Federal income taxes, Jack Frye, president, has announced. Comparable earnings for the 1943 period amounted to $872,927, or 90 cents per share. Net earnings for the nine months ended Sept. 30, 1944, totaled $2.04 per share after taxes, as compared to $1.99 per share for the like period of 1943.

Mr. Frye reported the company's total operating revenues for the three months ended Sept. 30, 1944, amounted to $7,783,259, or $1.22 per revenue plane mile flown, an increase of 49 per cent over operating revenues of $5,208,674 for the like 1943 period. Operating expenses for the 1944 third quarter totaled $5,272,381 and were equivalent to 82 cents per revenue plane mile flown, as compared with 90 cents per plane mile in the 1943 period.

TWA operated 34 airplanes in the 1944 third quarter, an increase of 30 per cent over the fleet operated in the like 1943 quarter. However, as a result of continued improvement in utilization, scheduling and maintenance, revenue miles increased 50 per cent over the 1943 period.

Helicopter Seen Tops in 5 Years

It is C. L. Morris' prediction that within five years the helicopter will "excel anything in the air."

Morris, who heads the helicopter division at Wright Field, Dayton, Ohio, made this statement at the first annual dinner of the American Helicopter Society at the Ambassador Hotel in New York. He asked that the United States Government spend the sum of $10,000,000 on helicopter research.

Pan Am Latin Division Reports Good Results

Reflecting marked increases in air travel and movement of air cargo between the Americas, the Latin American division fleet of Pan American World Airways registered during the last-reported 30-day period a 33 percent gain in passenger miles flown and an increase of 155 percent in express ton miles flown, compared with the same period a year ago.

The *Clippers* piled up more than a million and a half miles of flying over Pan Am's network of 50,000 route miles in Latin America during the month, an increase of 14 per cent over the same month of 1943.

Passenger miles flown by the division during the 30-day period totaled 23,539,498, compared to 17,754,202 during the same period a year ago. Total for the first eight months of 1944 is 155,948,309, or a gain of 21 percent over the 128,892,648 shown for the same months of 1943.

Express ton miles flown for the month totaled 851,152, compared to 333,900 a year ago, bringing the figure for the first eight months up to 6,668,669, a gain of 73 percent over the 3,850,541 for the same period a year ago.

Number of passengers carried over the *Clipper* routes linking the Americas totaled 24,346 for the month, compared to 19,449 for the same period of 1943, or a gain of 25 percent. The eight-months' total for 1944 is 166,161, and for last year, 138,082, or an increase of 20 percent.

In the holds of the *Clipper* fleet were carried 4,225,357 pounds of cargo during the month, a gain of 26 per cent over the 3,347,495 carried during the same period a year ago. Total pounds of cargo for the first eight months is 31,531,940, representing an increase of 22 percent over the 25,755,653 carried during the comparative period last year.

Number of plane miles flown for the month was 1,674,772 and for the eight months, 12,402,025. During 1943 the plane miles flown were 1,464,175 for the 30-day period and 11,902,081 for the first eight months.

In addition, the Pan American division transported 261,161 pounds of mail during the month for a total of 2,179,985 pounds during the first eight months of the year.

United Air Line Pilots Fly 7,300-Mile Route For Gen. MacArthur

The aerial supply line being maintained across the Pacific by United Air Lines for the Air Transport Command has assumed new importance with General MacArthur's latest drive, it was pointed out by United officials with War Department permission.

Veteran United Air Lines pilots who formerly flew in the company's passenger-mail-express services now are making two round trips daily between California, Hawaii and New Guinea, rushing men and materials to the Pacific war theatre and returning with sick and wounded, it was disclosed. The vital supply route covers 7,300 miles, extending from San Francisco to Honolulu, Canton, Guadacanal and New Guinea. The southwest leg of the route steadily has been moved northward as the campaign against the Japanese has progressed, officials said. Originally, the line extended to Brisbane. From there it was moved northward to Townsville, Australia, then to New Guinea.

United began operating the route for the Air Transport Command late in 1942. Since then, United Air Lines crews have flown approximately 14,600,000 miles, or the equivalent of 2,000 trips between California, Hawaii, and the South Pacific. They currently are operating a fleet of 20 four-engined Douglas C-54 transports of the Air Transport Command.

PCA Report Cites Large Increases

An increase of 122% in the number of passengers carried by Pennsylvania-Central Airlines during September over the same month in 1943 has been reported by PCA Vice-President J. J. O'Donovan. Considerable gains were also reported in both air mail and air express totals for the month.

PCA carried a total of 52,188 passengers over its sky-tracks during September, as against 23,412 during the same month a year ago. The Capital Airline is now operating with 14 of its original pre-Pearl Harbor fleet of 23 planes, but an announcement made several weeks ago in Washington stated that three more transport airplanes are to be returned to the airline by the Government.

During September PCA carried 459,088 pounds of air mail, an increase of 21 percent over the same month a year ago; air express totaled 470,150 pounds, representing an increase of seven percent.

Early this month PCA inaugurated service to Huntsville, Alabama, on the Birmingham segment of the airline's southern route, in recognition of Huntsville's important war activities and the need of implementing this war work with more rapid communication between this and other war-busy cities on the PCA system.

New Service By Pan Am. Links 3 Continents

Regular airmail, passenger and cargo service has been established between Miami, Florida, and Leopoldville, capital of the Belgian Congo, has been announced by Pan American World Airways. Twice monthly round trips are scheduled, according to Wilbur L. Morrison, vice president in charge of Pan Am's Latin American division under which the newservice is being operated.

The 7269-mile route linking three continents has been long sought by countries and colonies in Latin America and Africa, and has been described by the U. S. war and state department as essential to the war effort.

The route runs from Miami to San Juan, Puerto Rico; Port of Spain, Trinidad; Belem and Natal, Brazil; over the South Atlantic to Monrovia, capital of Liberia, and across the Gulf of Guinea to Leopoldville, 200 miles up the Congo River. It is flown in five days, with faster service scheduled shortly.

Record High For UAL Cargoliners

With cargoliner capacity doubled by inauguration of three new all-cargo flights, United Air Lines flew 1,796,221 ton-miles of air mail and a record high of 389,713 ton-miles of express in September, according to C. P. Graddick, air cargo director. He said air mail loads represented a 109 percent increase over the September, 1943, figure of 857,717 ton-miles. Express was up 17 percent from the 333,313 ton-miles flown in September last year.

NWA Mail Loads Show 40,000-Pound Rise

For the second straight month, Northwest Airlines mail loads, carried between Chicago, the Twin Cities and the Pacific Northwest, showed an increase in September with 532,325 pounds carried during the month. The report, announced today by Croil Hunter, NWA president and general manager, revealed the September figure exceeded that for the same month a year ago and is an increase of more than 40,000 pounds over the total for August. The planes carried their mail loads a total of 469,077,101 pound miles during September.

TO A. N. Kemp, president of American Airlines, who has been elected to membership in the board of directors of the Chase National Bank.

A. N. Kemp

Mr. Kemp has been prominently identified with public utility insurance and banking enterprises in California. He added commercial aviation to his interests in 1941 when he was elected a director of American Airlines. In April, 1942, he was asked to serve as president for the duration of the war when C. R. Smith was called to service in the Army.

Mr. Kemp was instrumental in developing construction of the West's first high-tension transmission lines, and in 1917 became vice-president of Southern California Edison Company. He later served as executive vice-president of the California Bank and in 1935 became president of the Pacific Mutual Life Insurance Company. He is now chairman of the board of Pacific Mutual, and a director of Standard Oil Co. of California, Southern California Edison, the California Bank, and American Airlines.

TO Howard B. Railey, who will be the State Department's civil air attache at Paris. For the past six years he has been liaison consultant for the Civil Aeronautics Board. He is a specialist in international aviation problems.

TO Charles M. Howell, Jr., designated as civil air attache at Rio de Janeiro.

For the past year he has been in Brazil, connected with a group of American technicians who have been aiding in the development of certain Brazilian airlines under the auspices of the Defense Supplies Corporation. Mr. Howell was previously associated with an aircraft manufacturing firm in Kansas City, and was also Assistant Attorney General of the State of Missouri.

TO Livingston Satterthwaite, assigned to London as civil air attache. He was designated several months ago. Mr. Satterthwaite is likewise assigned to several other European countries.

TO D. H. Robinson, new personnel manager for United Air Lines at the company's New York office.

Succeeding Carl Murray, he will have offices at the Air Lines Terminal Building and La Guardia field. Mr. Robinson joined United in 1940, and prior to his New York assignment was located at Denver.

TO A. Ogden Pierrot upon his appointment as United States civil air attache at Lisbon and Madrid.

Mr. Pierrot until recently was Washington representative for an aircraft manufacturing firm. In 1942 he organized the office of the United States Commercial Corporation at Lisbon, prior to which he was an official of the Aircraft Production Division of the War Production Board.

He also represented a number of American aircraft manufacturers in Argentina from 1934 to 1940, and before that was assistant commercial attache at the American Embassy in Rio de Janeiro for 11 years.

TO John H. O'Connell upon his appointment as manager of public relations for Curtiss-Wright's Propeller Division at Caldwell, New Jersey.

J. H. O'Connell

A former member of the editorial staffs of The Philadelphia *Evening Public Ledger* and The Philadelphia *Record*, he became connected with the division at Caldwell about two years ago. He moved on to the Beaver, Pa., plant where he served as plant public relations manager. Mr. O'Connell returned to Caldwell several months ago to become assistant manager of public relations—and now he has been moved up again.

TO Clifton T. Chadwick, who, as the new assistant to the treasurer of Continental Air Lines, will work on special assignments, including the preparation of estimates and renegotiation data.

C. T. Chadwick

Thirty-one years of age, Mr. Chadwick hails from Dickey, Colo. He began his career as an assistant to the cost supervisor of the Denver Ordnance Plant, formerly operated by Remington Arms; and from there migrated to the comptroller's office of TWA in Kansas City, Mo., where he was contract supervisor and staff assistant. From TWA Mr. Chadwick went straight to Continental.

TO Herbert J. Lyall, eastern traffic manager of American Airlines, D. A. O'Connor, northern division manager of Eastern Air Lines, and W. S. Allen, manager of the Terminal Corporation, who won office at the annual meeting of Stockholders of Air Lines Terminal, Inc.

Herbert J. Lyall

Mr. Lyall was elected to the presidency, Mr. O'Connor to the vice presidency, and Mr. Allen was re-elected secretary-treasurer.

TO John Maitland Cook of Minneapolis, NWA's first advertising manager.

For the last four years Mr. Cook has been advertising manager for the Davidson - Boutelle stores with branches in Minneapolis, Omaha, and Kansas City, and at one time was sales promotion manager for *The Kansas City Journal*.

John M. Cook

A native of Montello, Wis., Mr. Cook was, for a number of years, associated with Sears Roebuck and the Boston Store in Milwaukee. He was also associated with the Jones Department store in Kansas City. The newly created advertising department of NWA will coordinate activities between the company and the advertising agency handling the company's account.

TO Roy Campbell, Jr., Lockheed Aircraft Corporation's new advertising manager.

Native son of a native son, Mr. Campbell was born in San Diego and was graduated from the University of California in the class of 1926.

Roy Campbell, Jr.

In the late 1920's he was a vice-president of the Ryan Aeronautical Company, and, as aviation secretary of the San Diego Chamber of Commerce, did valuable work in developing airport facilities for that city. In 1932 he became part owner of the Barnes-Campbell Advertising Agency where he remained until joining Lockheed in 1942.

Prior to his new appointment, Mr. Campbell was manager of the Publications and Art Division, now part of the Advertising and Publication Department under his direction.

TO Capt. Gordon C. Shook, recently returned Air Transport Command officer, who has resumed his position as district traffic manager for Braniff Airways in San Antonio, Tex.

Capt. G. C. Shook

A native of Pearl, Tex., he attended school there and spent two years at Meridian College. He entered the merchandising business in his home town and practiced public accounting in Gatesville, Tex., before becoming associated with Braniff. Capt. Shook began as a ticket auditor in 1935 and a year later he assumed the position of district traffic manager in San Antonio. He joined the Army in 1942.

★ CONVENIENT TO THE AIRPORT AND PORT NEWARK

THE Sheraton Hotel

E. CURRY DUGAN
General Manager

15 HILL ST., *opp. City Hall.* NEWARK 1, NEW JERSEY

TO William B. Moore, operations manager for All American Aviation, Inc., newly named vice president in charge of operations.

William B. Moore

Mr. Moore joined All-American in April, 1942, and was appointed two months later as operations manager of the Military Cargo Division located in Harrisburg, Pa. After two years in this capacity, he was transferred to Pittsburgh to manage All American's commercial operations.

Prior to his affiliation with All American, Mr. Moore was manager of the State Airport at Harrisburg. He is a native of Clayton, Del., and has been active in aviation since 1927.

TO Jay M. Jackson, appointed assistant to general counsel of Braniff Airways under Judge Hal C. Thurman.

Mr. Jackson is a native of Kansas City. He attended schools there and also at Yellow Springs, Ohio. His law degree was received at the Kansas City School of Law, now a part of Kansas City University.

J. M. Jackson

Upon graduation, he was employed by Hardware Mutual Casualty Company as a claims attorney. He became familiar with legal matters pertaining to airlines while employed during the last five years as assistant to the resident attorney and in the contract division of TWA in Kansas City. Mr. Jackson has assumed his new duties in Dallas.

TO W. R. Thigpen, whose promotion brings him from district traffic manager of United Air Lines at Portland to district traffic manager for United at New York City.

W. R. Thigpen

Thigpen joined the company 11 years ago after studying at Stanford University and the Boeing School of Aeronautics. Making the rounds of San Francisco, Los Angeles, and Portland, he was named "first citizen" of the latter city in 1942.

TO Edward O. Ireland, former New York mail and express traffic representative for Transcontinental & Western Air, Inc., who has been elevated to the position of assistant director of cargo sales for the TWA system.

Edward O. Ireland

In his new position Mr. Ireland will work with A. W. French, director of cargo sales, with headquarters in Kansas City, Mo. However, he will spend considerable time in New York coordinating TWA's air cargo program with surface carriers.

Born in Barker, N. Y., Mr. Ireland attended schools in Rochester, after which he suddenly blossomed forth as the owner and director of operations of Shippers Express, Cambridge, Mass. Later he joined the staff of the Interstate Motor Freight System as manager of their terminals.

From 1938 through 1942 he was vice president in charge of traffic and terminals for the Liberty Motor Freight Lines, Inc., of Secaucus, N. J., and a director of the Ransco System, Inc., of Denver, Colo., an organization of interstate motor carriers.

Leaving commercial work to accept a commission in the Transportation Corps of the United States Army, he soon rose to the rank of captain. The officer was retired because of physical disqualifications and in 1943 joined TWA as mail and express representative.

TO Gerald T. Jones, assistant shop superintendent at the transatlantic headquarters of Pan American World Airways, La Guardia Field, New York, who has been inducted into the ranks of veteran employes of the airline with the award of his 15-year service pin.

Gerald T. Jones

Mr. Jones joined Pan Am in 1929 in Nassau, B. W. I., where he was employed in aviation by the British Government and later conducted his own machine shop. He has 1,750 flight hours to his credit as co-pilot, radio officer, and flight engineer aboard the Sikorski and Martin flying boats that pioneered long-range over-water flights in the Caribbean theater.

The completion of 10,000 hours in the air by a Continental Air Lines' *Lodestar* is believed to be a record for this plane "flown within the borders of the United States." Ten thousand hours represent 412 days of actual time in the air and a total mileage in excess of 1,800,000 miles, or 72 times around the globe.

Haruldur Arnason, Magnus Kjaran, and Eggert Kristjansson flew 2,000 miles from Iceland in 14 hours to attend the International Business Conference at Rye, N. Y. They breakfasted in Reykjavik, lunched in Canada, and dined that evening in New York.

A *Liberator* transport has cut the Honolulu-Hamilton Field, Calif., flying record by five minutes. The new mark stands at eight hours and 54 minutes.

United Air Lines has signed a contract with the Texas Oil Company for approximately a half-million gallons of oil annually.

The longest non-stop transport route in the world is the Ceylon-Australian run—a distance of some 3,500 miles. *Catalinas* have made more than 100 crossings.

Aeronca Aircraft has established an office in the Empire State Building, New York City. Alden E. Calkins, long a public relations man, is in charge.

Very often, 24 hours after donors have given their blood in New York and Washington, it is being transfused to wounded soldiers in France. The answer, of course, is airplanes.

The Civil Aeronautics Board has named a 20-man advisory committee to assist it in a study of multiple taxation of air carriers. Owen Ryan, CAB member, heads the committee as chairman.

According to Don James, Douglas service representative in Honolulu with the Naval Air Transport Service, the Douglas C-54 *Skymasters* average 200 miles an hour on the San Francisco-Honolulu run and carry 8,000 pounds of cargo.

Producers, shippers, and others who participated in the first coast-to-coast flight of a full planeload of perishable foods are receiving certificates "for their contribution to air cargo pioneering." The flight, from the Pacific Coast to New York, was in connection with a year-long research program sponsored by Wayne University, United Air Lines, and the Great Atlantic & Pacific Tea Company on the feasibility of carrying perishables by air.

Air transportation prophets are saying that before many months have passed, passengers will be carried to their seats by escalators instead of the present step ladders.

Plans have been made for holding the Pan-American Aircraft Exposition in Dallas during the week of May 20-27, 1945.

Allison is preparing to begin quantity production of jet propulsion units for the United States Army Air Forces. This new production assignment will be in addition to present production and delivery schedules on Allison liquid cooled V-1710 aircraft engines, of which more than 60,000 have been built since the start of the war.

Westland Aircraft, Ltd., in order to utilize some of its wartime expansion facilities, has established a new company. It is known as Westland Engineers, Ltd.

Applying to the CAB for permission to operate in New Hampshire as soon as normal air travel can be resumed are: Vermont Transit Company, Arthur W. Glose, Automobile Air Freight Corporation, Cambridge Taxi Company, Colonial Airlines, Frank P. Magann, F. S. Willey & Company, Greyhound Skyways Corporation, Henry G. Bowen, Northeast Airlines, R. E. Guerin Trucking Company, Shawmut Air Freight, Skyway Corporation, Trailways of New England, William Filene & Sons Company, Norseman Air Transport, and All American Aviation, Inc.

Three Douglas transport planes, formerly used by the Army, are to be reconverted by Aero Services, Inc., Metropolitan Airport, Van Nuys, Calif., for the commercial use of TACA Airways. Two of these surplus army planes will become passenger liners, and one will be made into a freighter for TACA's Central and South America routes.

Michael Baker, Jr., chairman of the Planning Committee of the American Public Works Association, who was named by the Beaver County (Pa.) Commissioners to do a six-months' exhaustive study of physical, sociological, and economic make-up of the county and evaluate its potential development, has recommended the establishment of a series of hydroports along the Ohio River. In addition, he has suggested eight feeder airports and one large commercial field.

Col. Laigh C. Parker, former general traffic manager of Delta Air Lines, is now overseas serving with the European Division of the Air Transport Command of the United States Army Air Forces in France as Assistant Chief of Staff in charge of priorities and traffic. Col. Parker is on the staff of Brig. Gen. Earl S. Hoag, Commanding General of the European Division, ATC. He assumed his new duties recently after serving in the priorities and traffic office at Washington headquarters of the Command.

Springfield (Mass.) Feeder Airlines, Inc., has proposed air service between Springfield and Boston, New York, or Albany, for $4 a trip. If the CAB grants its application, the line plans to start operations in the Spring—not as a competitor to the major lines, but as a feeder to them.

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